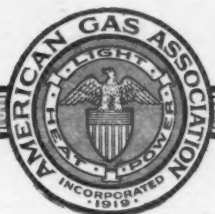


AMERICAN GAS ASSOCIATION MONTHLY



Vol. II

No. 5

May, 1920

"A public utility is not a charitable institution. Its patrons are not expected to, nor can they be compelled to pay more than reasonable rates and neither can the utility be expected to survive on rates less than those sufficient to produce revenue to pay proper expenses and fair return."

The Public Service Commission of Pennsylvania.

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FOR STATEMENTS AND OPINIONS CONTAINED IN PAPERS AND DISCUSSIONS
APPEARING HEREIN, THE ASSOCIATION DOES NOT HOLD ITSELF RESPONSIBLE

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Vol. II MAY, 1920 No. 5

WITH THE EDITOR.

Not a Uniform Load

One hundred and ninety-two gas companies contributed \$10,512.00 for defraying the expenses of the National Committee on Gas & Electric Service. That means, to put it in plain words, that something over eight hundred gas companies who failed to contribute, let one hundred and ninety-two companies, who did, carry the whole burden of a work that was profitable to the entire industry.

Three hundred and seventy-one gas companies as members, contribute in dues to the support of the American Gas Association. That means that more than six hundred gas companies are not supporting the national organization as company members, but it does not mean that they are not deriving constant benefit directly or otherwise from the work the Association is doing.

Meanwhile the Association is forging ahead and its work is securing practical returns. It is established and successful. It deserves and should have the whole-hearted support of every company in the country.

To be "in full sympathy with the Association's work" is something but it is not enough. That work to be most effective must be backed generally by active interest and funds. Two Scotchmen were discussing the misfortune of another. "I'm awful sorry for the poor man," said one. "Aye," was the quick retort, "an' how far down in your pocket does your sympathy extend?"

"Merchandising"

Who are to be the future merchandisers of gas? Will the looked for rehabilitation of the Commercial Depart-

ments of Gas Companies materialize or will the conservative policy compelled by the war continue to prevail? Establishments whose business it is to sell, have gone gaily along and sold, and are still selling the appliances that use gas. Do they do this as a means to increase the use of gas or to provide service to a gas-consuming public? No. We believe not. We understand that they are actuated by the same purpose that prompts them to sell hats and pianos, door-mats and diamonds. There is a demand; the merchandiser supplies it, and finds the gas appliance business a profitable one. We ought to be glad of that if only for the lesson.

Revive the Sales Department. Put it on a permanent foundation that no period of stress can disturb. Its your chief point of helpful contact with your public, one of your most direct avenues of service to that public; if rightly run, your best advertisement, your best sentiment builder—and after all has been said, it may still be observed that merchandising gas appliances is profitable.

"Tell it to the People"

The railroads have gone back to their owners. Government control of coal has been removed, and Business is cautiously feeling its way back to the highroad. But the old barriers of over regulation and restriction have not been entirely removed from the path of the utilities. A re-awakened public opinion will help much and it can be had in exchange for good service and an appeal to reason. The people will be fair but first they must know "what it's all about!"

Go out into the highways and byways, which means the civic clubs, the chambers of commerce, the schools, the centers of community life, wherever your people gather and tell them your story. Get their interest and their confidence. Then the professional regulator will depart, and sooner or later he will have to do an honest day's work to live, for the job he's got won't last when the public understands. The people will settle it, but first you have got to tell them "what it's all about!" They don't know now!

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Unity in the Gas Industry

Remarks of Geo. B. Cortelyou, President of the American Gas Association, at the Sixteenth Annual Banquet of the Illinois Gas Association, Hotel Sherman, Chicago, Illinois, Wednesday evening, March 17, 1920.

THE kind invitation to attend this meeting I acknowledge with deep appreciation, not only of your courtesy but of the opportunity you have thus given me to meet so many of the men engaged in the gas industry in this great State.

As for the American Gas Association I may say that it extends to you its hearty greetings and congratulations. Its Executive Board has been in session here to-day, and a number of its officials have also accepted your hospitality. May the ties that unite our associations, Mr. President, grow stronger with each passing year.

This invitation was couched in most cordial terms, concluding however, with the admonitory expression: * * "and we know they (the gas men present) would appreciate a four minute address by you." This suggestion of brevity came like a breath of fresh air on a sultry day, like a clear voice in a

babel of tongues. Fewer words and more work, would be a good prescription for many of the ills that afflict the world to-day.

For several years, and particularly for the past two, I have spoken at various gatherings of the representatives of our industry. At such meetings we discuss the details of our business—our problems of management, of construction, of manufacture, of distribution, of research; and our public relations in their several aspects. We invoke the experience of the past that we may, with the added knowledge and facilities of the present, secure results worthy of the industry's best traditions. And from these we look toward our future, with courage and conviction that it will be bright with achievement, notable in its public benefits.

These discussions are, therefore, of great value to us. Such conventions as yours, with its fine spirit, its numbers

and its enthusiasm, are an inspiration to service. They grow yearly more important and more helpful, and among the influences that are contributing in large measure to the development of the American Gas Association—representative, as it is, of the industry at large—is the co-operation of such organizations as this.

Whatever I have heretofore said on these occasions seems to me to invite some consideration of the subject upon which I venture a few words this evening, a subject that to me makes at this time an especial appeal—that we shall give to all our activities the impetus that is induced by united action. Let us have to-day and for the future, Unity in the Gas Industry, unity in open-minded study of all questions that affect the industry as a whole, unity in our purpose to render the highest possible service, unity in our determination to merit and to be accorded a “square deal.” There should be no half-way measures in either respect. I believe the time is ripe for us to emphasize such an attitude on our part.

Realizing fully the need for intensive cultivation alike of old and new fields—for the closest attention to all the material phases of our business—our one overshadowing concern to-day, in which united action can be most beneficial, is in the direction of our public relations. While there have been shortcomings in the past, and undoubtedly some still exist, looking at it from one end of this broad land to the other, there is no branch of commercial or industrial activity more honestly conducted than ours. The time is passing when we can be made the football of political expediency. If we render thoroughly efficient service, if we exemplify in the conduct of our companies the highest principles of commercial

honor, if we surround the men and women who work in our offices and plants with genuine American influences, that is, the opportunity to live their own lives worthily, and if, as a result, we give to the communities we serve a full return for the privileges they accord us, we shall always be in a position to demand fair treatment. Much as we may feel it to be our due, however, we shall achieve it only by conscientious purpose and unremitting effort.

Aside from our duties in our own household—and there are many problems of the most immediate interest now before us, like those involved in the present situation regarding oil and coal—we have a duty not only to ourselves and to all who hold the securities of our properties, but to our consumers as well, to contend openly and vigorously for our rights wherever they are assailed. Unjust and ill-advised features of regulation, or confiscatory proposals born of political agitation, must be fought in the interest of sound public policy. In regulatory bodies we have at times the spectacle of public officials construing their function to be that of public prosecutors, and, in these and other tribunals, economic conjecture, rather than the teachings of practical experience, controlling. These are evil tendencies, contrary to the spirit of our institutions and repugnant to the American instinct of fair play.

Politics should have no part in the consideration of these questions save that enlightened politics that is shown when an official realizes his obligation to discharge his duties fearlessly and in accordance with a just view of facts impartially ascertained. And many public officials, in this trying period, are meeting this test in a way that is most encouraging.

In these and other matters intimately related to the welfare of the business, and especially during this time of haphazard projects and extravagant utterance, the members of our industry can be a source of strength and sanity in their communities and collectively a far-reaching influence for National progress.

Let us, then, as companies and as individuals, do our part in the industry, honestly, efficiently and unitedly, and as citizens strive together to re-awaken that spirit among the people that found voice in Webster's noble appeal, when that mighty defender of the Constitution said:

"Let us hold fast the great truth, that communities are responsible as well as individuals; that no government is respectable, which is not just, that without unspotted purity of public faith, without sacred public principle, fidelity and honor, no mere forms of government, no machinery of laws, can give dignity to political society."

Convention of Wisconsin Gas Association

The Wisconsin Gas Association held its Nineteenth Annual Convention at the Hotel Pfister in Milwaukee on March 23, 24 and 25. The program included the following papers:

"Timely Suggestions for Stopping Wastes in the Boiler Plant," by Loren L. Hebbard, M. E., Field Engineer, Combustion Engineering Corporation.

"Obtaining and Holding Commercial Gas Lighting," by Charles A. Pepper, Sheboygan, Wis.

"On the Removal of Hydrogen Sulphide from Gas," by Profs. O. L. Kowalke and E. C. Brenner, University of Wisconsin.

"The Factory Owner's Version of the Value of Gas as an Industrial Fuel," with lantern slide illustrations of recent installations, by A. A. Schuetz, industrial engineer, Milwaukee, Wis.

Mr. R. B. Brown of Milwaukee represented the American Gas Association, of which he is a Director, and in addressing the meeting called attention to the profitable work which can be done through close cooperation between the national organization and its affiliated associations. He described at length some of the current activities of the American Gas Association, and urged the desirability of membership on the part of those who have not yet enrolled.

President Rahn spoke in similar vein and Professor O. L. Kowalke referred to the work of the Chemical Research Committee as well as the Refractories Committee and described the activities in which they are engaged while Mr. Haase for the Accounting Section, and Mr. Jasperson for the Advertising Section, and Mr. Lyons for the Technical Section described the work being conducted by those branches of the national organization.

Part of the meeting was devoted to a joint session with the Wisconsin Electrical Association, in the course of which Mr. B. J. Mullaney of Chicago outlined the activity of the Illinois Committee on Public Utility Information.

The banquet was held in the main dining hall of the Milwaukee Athletic Club. Mr. E. J. Dempsey, Oshkosh, presided as toastmaster, and the principal speaker of the evening was Mr. William Rainey Bennett. Mr. James H. McGillen of Green Bay also addressed the diners.

GENERAL

CHAIRMEN OF GENERAL COMMITTEES ORGANIZED TO DATE

National Bureau of Standards (Advisory Committee)—O. H. FOGG, New York, N. Y.	Gas Securities —RANDAL MORGAN, Philadelphia, Pa.
Beal Medal —GEO. B. CORTELYOU, New York, N. Y.	Funds for Gas & Electric Service —H. L. DOHERTY, New York, N. Y.
Accident Prevention —JAMES B. DOUGLAS, Philadelphia, Pa.	National Fire Protection Assn., Membership in —W. R. ADDICKS, New York, N. Y.
Amendments to Constitution —WM. J. CLARK, Mt. Vernon, N. Y.	Relations with Other Assns., etc. (Formation of Geographic and Company Sections)—L. R. DUTTON, Jenkintown, Pa.
Chamber of Commerce, Membership in —CAPT. WM. E. MCKAY, Boston, Mass.	Standard Gas Appliance Specifications —W. T. RASCH, New York, N. Y.
Calorific Standards —J. B. KLUMPP, Philadelphia, Pa.	Standard Pipe Threads (International)—W. CULLEN MORRIS, New York, N. Y.
Central Development and Testing Laboratory —W. H. GARTLEY, Philadelphia, Pa.	Taxation —P. S. GADSDEN, Philadelphia, Pa.
Educational —WALTON CLARK, Philadelphia, Pa.	
Finance —E. H. ROSENQUEST, New York, N. Y.	
Gas & Electric Service (National)—W. H. GARTLEY, Philadelphia, Pa.	

From The Board Room

THE March meeting of the Executive Board was held in Chicago in the building of the Peoples Gas Light & Coke Company on the 17th of the month, with a good attendance of members from both the West and the East.

There were approved for election to membership six gas companies, one holding company, four manufacturer companies and fifty-nine individuals.

The announcement was made of the appointment of a Special Committee on Federal Taxation with Mr. P. S. Gadsden, of Philadelphia, as Chairman and the following members: Edmund M. Wakelee, Newark, N. J., G. G. Brownell, R. A. Carter and W. E. McClellan, New York.

The National Committee on Gas and Electric Service, which represents jointly the National Electric Light Association and the American Gas Association, will continue its Washington office until the end of the present year. Complications in the coal situation, due to the return of the railroads to their owners, and conditions arising out of the removal of

Federal control over coal will require the attention of the Committee as will a number of other matters affecting the gas industry in which its interests must be properly represented.

Other matters discussed included the suggestion to appoint a committee on Methods for Charging for Gas, and the personnel and procedure recommended for the Committee which will be named to cooperate with universities, colleges and other educational institutions for the purpose of bringing to the attention of technical students the opportunities afforded by the gas industry to those about to engage in business. It was also suggested that a committee be formed to work out a plan for reporting or keeping operating results and statistics, such as coal, oil and other materials used per thousand, in some uniform manner so that they may be relegated to a common standard for purposes of comparison. The operating results as reported by different companies do not make accurate comparison possible, and the Board has referred the matter to the Technical Sec-

tion with the request that it be considered and definite recommendations presented.

It was the sense of the Executive Board that the program for the Annual Convention should be simplified sufficiently to permit adequate time for the free discussion of papers and reports and other matters of importance and interest.

The Special Committee of the Board appointed to investigate the oil situation presented its preliminary report which was thoroughly discussed. The subject has been under continuous and careful consideration and the work has proceeded without interruption since the committee was appointed. The matter is one which has many ramifications and requires the broadest study before the final conclusions can be reached. In the opinion of the committee the present oil shortage is directly attributable to an economic price condition brought about by an unprecedented demand for gasoline and other petroleum products which now exceed the available supply. Experiments are already in progress to determine to what extent substitute oils may be satisfactorily employed in gas manufacture. It is felt that wherever it is possible to do so steps should be taken to bring about the abolition of candle power standards, substituting therefor a reasonable heating value standard and that the question should be recognized as being also an economic one because stability of rates cannot be maintained in the face of violent fluctuations in the cost of essential gas making materials. Plans for expediting the work were discussed and it was decided to enlarge the committee so that several phases of the subject may be simultaneously considered and conclusions arrived at as quickly as possible. The committee has in preparation a statement which will be completed and forwarded early in April to all com-

pany members and which will give all information so far available.

The reports of the Chairmen of Sections were presented and all indicate satisfactory progress in Sectional and Committee activities.

Members of the Board attended the dinner of the Illinois Gas Association which was held on the evening of March 17th at the Sherman Hotel.

Charging for Gas by its Heat Units is New Suggestion

A new method of charging for gas is proposed by Sir Auckland Geddes, the British Food Controller, according to Augustus E. Ingram, United States Consul at Bradford. The suggestion is that, instead of buying gas by the cubic foot, the consumer buy it on the basis of the heat it is capable of developing, as for nearly all uses to which gas is now applied its heating value is the desideratum.

The consumer will be presented with a bill for so many heat units instead of so many cubic feet. The meter will continue to register cubic feet, but the consumer's bill will be rendered in terms of "gas units." The gas undertaking will be called upon to show what is the calorific value of the gas it supplies, and by multiplying the cubic feet registered on the meter by the calorific value the number of units to be charged for will be arrived at.

Gas consumers may be puzzled at first by the new method of charging, but there is very little mystery in it. A British thermal unit (B. t. u.) may be described as the quantity of heat required to raise one pound of water 1° Fahr. A gallon of water weighs ten pounds. It follows that when one puts the teakettle on to boil, should it contain two pints of water, to bring the water from an average of 60° F. to the boiling point of 312° F. one

must use 380 B. t. u. It is proposed that the new "gas unit" will contain 100,000 B. t. u., so that one gas unit will contain sufficient heat to boil 260 such kettles of water (supposing there is no waste of heat in the operation). The price of the "gas unit" will vary in different towns.—Cincinnati *Commercial Tribune*.

Committee on Gas Oil

The Special Committee of the Board appointed to investigate the gas oil situation has enlarged its number by the appointment of several sub-committees to expedite the prompt handling of the several different phases of the subject.

The Chairman, Mr. J. B. Klumpp, 1401 Arch Street, Philadelphia, Pa., requests information from companies which are successfully using substitute oils and will welcome any data upon the subject as well as information from any company which is experiencing difficulty as the result of the shortage in oil supply.

The Committee will do its best promptly to supply advice or information to any of our company members who may be in need of it.

Needed Legislation

Senate Bill No. 4088, introduced by Senator Frelinghuysen, is designed to prohibit common carriers from confiscating coal. It is a step in the right direction and we hope it may be followed by measures which will ultimately prevent the use of high volatile coking coals for locomotive fuel or for any other purposes where the non-recovery of by-products results in economic waste. The Nation's fuel bill will keep on mounting unless conservation principles are wholeheartedly applied.

The Gas Industry and Its Relation to the Chemical Industry

The Gas Industry will be the subject assigned to the Spring Meeting of the

American Section of the Society of Chemical Industry, to be held at Rumford Hall, Chemists' Club, No. 52 East 41st Street, New York City, Friday evening, May 21st.

Mr. Robert M. Searle, President, Rochester Gas & Electric Corporation, will deliver the principal paper of the evening on a subject relating to the development of gas manufacture as a chemical industry, and several other gas engineers have been asked to present papers on related subjects.

The Vice-Chairman of the American Section of the Society of Chemical Industry extends a cordial invitation to members of the American Gas Association in the locality of New York, or who may be in this vicinity at the time of the meeting, to attend and take an active part in discussing the papers.

Oil Contracts and Gas Rates

The application of the Washington Gas Light Co. for a continuation of the 95¢ rate until June 1st, 1920, (which was to have expired April 1st, 1920) has been granted by the Public Utility Commission of the District of Columbia. The extension is made necessary because of the Company's inability to make contracts for a supply of oil, or to obtain quotations on deliveries. Evidence was supplied by the Company showing that their contract for oil at 6¢ expired March 15th, and the new contract which they obtained at 7½¢ will terminate June 1st. Estimating a 5% increase in sales, and even if able to procure sufficient oil at the 7½¢ rate for the year 1920, the Company would be unable to operate with a gas rate of less than \$1.10, in which figure no provision is made for any increase in the amount of materials, supplies and working capital.

Service—Prosperity—Progress

The A. G. A. considers its mission only partially fulfilled when it has assisted gas companies in their operating and commercial problems, or has supplied information from its large store of gas data. Beyond this is a broad visualization of a growing utility business, operating profitably, adequately serving all communities under fair regulation, its problems understood and its service appreciated by the public and regulatory bodies.

The Association's field for usefulness is unlimited; through its company and individual membership many opportunities are afforded for doing work beneficial to the companies and to the business as a whole.

We need the collective effort of the gas business—all companies—all individuals engaged in it—to meet a self-imposed obligation.

Much has been done, but there is still much to do. The way is plain and we are on the right road. Let us unite in the effort to make the gas business a bigger and better business—one that shall be recognized as an attractive field for investment—one that shall serve a larger and better satisfied public—an up-to-date national industry.



130 E. 15th Street
New York

A Growing Membership

Mr. Percy H. Hall, Special Representative of the American Gas Association, has just returned from a trip through the South where he was successful in enrolling more than twenty gas companies in the Association. The hearty interest in the A. G. A. which he found, with very few exceptions, in the States of Virginia, North Carolina, South Carolina and Georgia was most gratifying.

The industrial conditions in the South, notwithstanding the boll-weevil menace, are extremely promising. Southern farmers are no longer depending on a cotton crop solely. With its extremely productive land the South can grow anything, and it will.

There was not a company visited by our Representative but would be materially assisted by membership in the Association. As an indication of the service which the Association is in a position to render its members, two of the southern companies visited by Mr. Hall applied for membership and requested assistance

in the matter of their accounting systems. From Association Headquarters and through the Accounting Section's state representative information was immediately forthcoming which will undoubtedly greatly assist these two companies. Hardly a day passes but the Association Headquarters is called upon and supplies to its member companies information and advice as the result of direct inquiries. Membership puts the smaller company in close and immediate touch with what is taking place in the industry at large.

In many of the companies visited Mr. Hall found evidences of the need of Association assistance, and this was particularly evident in companies which could not be prevailed upon to enroll. The cost to these companies is very small and the benefits to be derived so great that their attitude is difficult to understand.

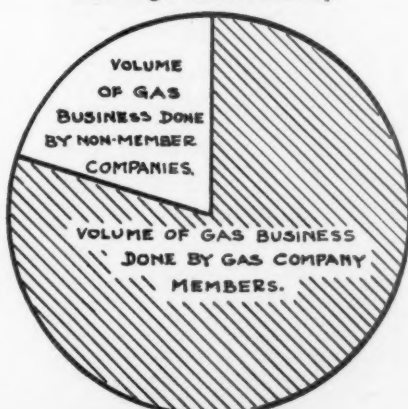
The example of the many companies in the South who have recently joined the Association, and who believe that the help they will receive is of the greatest

WHERE IS THE DISCREPANCY ?

Company members by number enrolled



Members as represented by volume of total artificial gas business of U. S.



The answer is that many small companies who need the benefit of Association membership *most of all* have not yet seen the light.

importance to them, should be followed by those who have not enrolled. The membership in South Carolina now includes every privately owned gas company in that State, and in North Carolina and Georgia all but two companies in each State.

There are now 371 gas companies, 188 manufacturers of gas appliances, apparatus and supplies and 1960 individuals holding membership in the Association. An analysis of the gas companies indi-

cates that it is the smaller companies and the ones who need and would derive the greatest benefit from the A. G. A. who are not in as company members. The companies at present holding membership should make it their business to interest these non-member companies in joining, for without question the strength of the Association's work will be materially increased and its influence strengthened in proportion to the number of companies it represents.

New Members Enrolled in the American Gas Association, Inc.

March 10, — April 9, 1920.

GAS COMPANY MEMBERS

Trinidad Elec. Trans. Ry. & Gas Co.....	W. P. Southard, Trinidad, Colo.
Key West Gas Co.....	E. C. Bostock, Key West, Fla.
Americus Lighting Co.....	J. M. Lucas, Americus, Ga.
Mutual Light & Power Co.....	O. C. Lisman, Brunswick, Ga.
Griffin Gas, Ice & Cold Storage Co.....	C. G. Duncan, Griffin, Ga.
Valdosta Gas Co.....	J. H. Hagerty, Valdosta, Ga.
Consumers Gas & Coke Co.....	E. C. Combs, Waycross, Ga.
New Orleans Gas Light Co.....	A. E. Merchant, New Orleans, La.
Annapolis Public Utilities Co.....	H. T. Connolly, Baltimore, Md.
Springfield Gas & Elec. Co.....	W. W. Nielson, Springfield, Mo.
Queens Borough Gas & Elec. Co.....	Carleton Macy, Far Rockaway, N. Y.
Ogdensburg Gas Co.....	J. M. Daly, Ogdensburg, N. Y.
Southern Public Utilities Co.....	D. G. Calder, Charlotte, N. C.
Southern Gas Improvement Co.....	J. T. Stallings, Elizabeth City, N. C.
N. C. Public Service Co.....	C. M. Crawford, Greensboro, N. C.
N. C. Public Service Co.....	J. H. Jennings, High Point, N. C.
N. C. Public Service Co.....	J. H. Robertson, Salisbury, N. C.
Chickasha Gas & Elec. Co.....	Fred W. Insull, Chickasha, Okla.
Anderson Gas & Utilities Co.....	E. R. Horton, Jr., Anderson, S. C.
Florence Gas Co.....	C. L. Rometry, Florence, S. C.
Southern Public Utilities Co.....	W. B. Ellis, Greenville, S. C.
Rock Hill Gas Co.....	Martin L. Love, Rock Hill, S. C.
S. C. Light, Power & Rys. Co.....	Geo. B. Tripp, Spartanburg, S. C.

HOLDING COMPANIES

Federal Light & Traction Co.....	J. S. Thornton, New York, N. Y.
----------------------------------	---------------------------------

MANUFACTURERS

Alphons Custodis Chimney Const. Co.....	J. B. Pell, Chicago, Ill.
American Gas Furnace Co.....	P. F. Reichhelm, New York, N. Y.
The Godfrey Conveyor Co.....	John F. Godfrey, Elkhart, Ind.
Iron Hydroxide Co.....	M. C. Fox, Philadelphia, Pa.
Monarch Engineering & Mfg. Co.....	H. D. Harvey, Baltimore, Md.
Oderless Incinerator Co.....	H. S. McCartney, Philadelphia, Pa.
Pittsburgh Meter Co.....	A. G. Holmes, Pittsburgh, Pa.
Pratt & Cady, Inc.....	C. W. Stephen, Hartford, Conn.
Riter Conley Co.....	H. S. Sanford, Pittsburgh, Pa.
Standard Chemical & Supply Co.....	Geo. B. Davis, Cambridge, Mass.

Active Members

ILLINOIS

Public Service Co. of N. Ill., Chicago
E. H. Enander

INDIANA

Citizens Gas Co., Indianapolis
J. D. Forrest
Northern Indiana Gas & Electric Co., Peru
Paul Angus McLeod

IOWA

Peoples Light Co., Davenport
Carl J. Hauschildt
Clinton A. Nash
C. R. Stahl

MARYLAND

Consolidated Gas, Electric Light & Power Co.,
Baltimore
Edward H. Bush
W. H. Cassell
Stephen R. Rollins

MASSACHUSETTS

Arthur D. Little, Inc., Cambridge
Arthur D. Little
Lowell Gas Light Co., Lowell
Theodore L. Pearson
William James Pead, Jr.

MINNESOTA

St. Paul Gas & Electric Co., St. Paul
Ernst M. Von Krusen

NEW JERSEY

Public Service Gas Co., Burlington
Ernest Drayton
Public Service Gas Co., Camden
Charles H. Habfast
Robert Long
Rueben A. Wilbraham
Consolidated Gas Co. of N. J., Long Branch
Harold E. Mason
Cumberland County Gas Co., Millville
Merle W. Querns
Public Service Gas Co., Montclair
Fred S. Breese
W. A. McCrea
Fred W. Schorn
Vernon F. Stanton
New Method Utilities Co., Newark
Adolphe E. Bosse
Public Service Gas Co., Newark
Christopher Dennis
Miles S. Sherwood
Public Service Gas Co., Paterson
Wm. Botthyl
Fred Brokenshire
David P. Care
Albert Hampson
Ike Quackenbush
Harry Schoonvongen
George Titus

Public Service Gas Co., Trenton
Charles W. Brown
Harry H. Williams

NEW YORK

Municipal Gas Co., Albany
William C. Bryant
Thomas H. Powers
Edward B. Shevlin
Iroquois Natural Gas Co., Buffalo
Bert C. Aliphant
Central Union Gas Co., New York
Geo. P. Arbogast
Alfred O. Buckridge
Peter B. Dempsey
J. W. Deuel
Wm. L. Diehl
Edward B. Gallagher
Alfred J. Ganter
Arthur Cyril Harland
Elwood S. Kerr
Oscar F. Peterson
Will Raad
Frank Reimer
Dominic Rizzo
Fred Schroeder
Rocco F. Talento
Carleton H. Upson
Albert C. Walker

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Standard Gas Light Co., New York
Albert W. Alsing
Bartholomew F. Barry
Vincent A. Dalton
Thomas J. Hoffmire
Nicholas A. Palmieri

Central Hudson Gas & Elec. Co., Poughkeepsie
G. Howard Hitz

Adirondack Power & Light Co., Schenectady
Charles W. Shay
Stanley J. Thompson

PENNSYLVANIA

Phila. Suburban Gas & Electric Co., Chester
Wm. MacMillan
United Gas Improvement Co., Philadelphia
Charles M. Brown
Samuel Burns
Frank W. Cahill
Frank W. Craymer
George W. Duncan
James J. Duross
Joseph B. McClenahan
Michael V. McGinn

(Continued on page 318)

The Annual Fire Loss

The pamphlet issued in January 1920, by the National Board of Fire Underwriters, No. 76 William Street, New York City, entitled—"Safeguarding America Against Fire" presents, in a comparative list of principal causes, some statistics which are interesting to the gas man, from which we quote

1917 TOTAL AMOUNT OF LOSS \$231,638,040.

Gas—Natural and Artificial \$2,188,471. = 0.94%

Electricity 19,885,522. = 8.58%

1918 TOTAL AMOUNT OF LOSS \$283,103,101.

Gas—Natural and Artificial \$2,743,080. = 0.97%

Electricity 20,780,307. = 7.34%

We have always maintained that the

fire hazard of artificial gas has been greatly exaggerated. Until the loss alleged to be due to artificial gas fires is separately recorded from those charged to natural gas the true figure will remain in doubt—but we have urged upon the National Board of Fire Underwriters the desirability of separating the gas classification in future reports.

Gas engineers should make a careful analysis of fire loss statistics—the facts will be creditable to the gas industry, which is striving as earnestly as any to reduce the enormous fire waste of the country.

A Sane Recommendation

In its report transmitted to the President on March 10th, the United States Bituminous Coal Commission included a recommendation that ought to carry real weight. It is—"That operators in supplying their quota of fuel to the railroads avoid, except in emergencies, the use for that purpose of coal whose properties make it more valuable for other uses."

High volatile gas coal has no proper place in the fire-box of a locomotive boiler, nor for any use where its full value may not be realized through the recovery of by-products. The need for conservation of our fuel resources demands the most efficient utilization of those at our command, and the Commission's recommendation is very much to the point.

An Omission

The article appearing in the April MONTHLY under Accident Prevention Committee, was contributed by Mr. Charles O. Pratt, Assistant Superintendent, Worcester Gas Light Company, Worcester, Mass., of which mention was inadvertently omitted.

OBITUARY

Alfred B. Eaton, for twenty-four years Western sales representative of the United Gas Improvement Company, died in Philadelphia, on March 24th. Mr. Eaton was born at Buffalo, N. Y., October 19, 1864, educated in Detroit and entered the employ of the Chicago branch of the Pennsylvania Globe Gas Light Company in 1890. He was appointed Western sales representative of the United Gas Improvement Company, April 7, 1896, making his headquarters in Chicago. He was a member

of the American, Illinois, Indiana, Michigan and Wisconsin gas associations.

Mr. Eaton was devoted to hunting and fishing and a member of several rod and gun clubs. He had a very wide circle of friends among devotees of outdoor life, but no where was he better known and more beloved than among the men of the gas industry to whom he was always a genial friend and true comrade. He was taken ill last December, and after a period spent in Miami, Florida, he was removed to the Jefferson Hospital in Philadelphia where his death occurred.

ACCOUNTING SECTION

A. P. POST, Chairman

H. W. HARTMAN, Acting Secretary

A. L. TOSSELL, Vice-Chairman

MANAGING COMMITTEE — 1920

At Large

ALDEN, CHARLES A., Boston, Mass.
BRUNDAGE, H. M., New York, N. Y.
ERICKSON, HALFORD, Louisville, Ky.
PETTES, W. H., Newark, N. J.
POST, A. P., Philadelphia, Pa.
REES, RICHARD, (Mfr.) Kalamazoo, Mich.
SCHMIDT, WM., JR., Baltimore, Md.
SCOBELL, E. C., Rochester, N. Y.
TOSSELL, A. L., Chicago, Ill.

Representing Affiliated Societies

ARMSTRONG, J. J., Toronto, Can. (Canada)
CHAPIN, C. H. B., New York, N. Y. (Empire State
G. & E. Ass'n.)
EATON, H. M., Detroit, Mich. (Michigan)
HAASE, EWALD, Milwaukee, Wisc. (Wisconsin)
HOUGHTON, W. E., Los Angeles, Cal. (Pacific Coast)
JAMES, F. M., Aurora, Ill. (Illinois)
MAYNARD, H. B., Waterloo, Iowa. (Iowa)
McCABE, J. B., Dallas, Texas. (South Central)
NORTON, W. F., Nashua, N. H. (N. E. Gas Eng.)
PORTER, EDW., Philadelphia, Pa. (Pennsylvania)
POTTER, O. F., Newark, N. J. (New Jersey)
SHEARON, B. P., Hammond, Ind. (Indiana)
STOUGHTART, E. C., Charleston, S. C. (Southern)

CHAIRMEN OF SECTION COMMITTEES ORGANIZED TO DATE

Automobile Cost Accounting—S. J. PALMER, Chicago, Ill.
Merchandise Accounting—W. A. SAUER, Chicago, Ill.
Job Order Systems—W. G. STERRETT, Chester, Pa.
Vice-Chairman, F. M. JAMES, Aurora, Ill.
Office Labor Saving Devices—J. L. CONOVER, Newark,
N. J.
Papers—H. M. BRUNDAGE, New York, N. Y.

State Representatives—J. W. HEINS, Philadelphia, Pa.
Trade Acceptances—(Joint Com. with Mfrs.) L. F.
MUSIL, New York, N. Y.
**Uniform Classification of Accounts and Form of Annual
Report to Public Service Commissions**—W. J.
MEYERS, New York, N. Y.
Uniform Accounting Nomenclature—W. H. PETTES,
Newark, N. J.

Managing Committee Meets in Chicago

THE fourth meeting of the Managing Committee and Committee Chairmen was held at Chicago, March 18 at 2 P. M., with the following members present: A. P. Post, Chairman; Chas. A. Alden, Ewald Haase, F. M. James, H. B. Maynard, W. J. Meyers, S. J. Palmer, W. A. Sauer, A. L. Tossell and H. W. Hartman, Acting Secretary.

The accounting program for the Convention was again considered and a progress report from the Chairman of the Papers Committee submitted. The following additional subjects for papers were mentioned:

The Functions of a Public Utility Auditor

Continuous Inventories of Fixed Capital

Operation of Fire Insurance Practices

by Utility Companies

It was agreed that not more than four papers be presented at the Convention and that ample time be provided for discussion. A meeting of the Papers Committee will be held in April at which four papers and authors will be selected from the subjects suggested.

Encouraging progress was reported by the Committee Chairmen, indicating that all reports will be submitted for approval well in advance of the Convention.

Job Order Systems

Mr. F. M. James, Vice-Chairman, reported the personnel of the Committee practically completed with the exception of one additional Western member who will be secured through the State Representatives.

Mr. G. I. Vincent's membership on the Committee will provide touch with the Work Schedule Committee of the Commercial Section and also cover any technical aspects of the work.

Automobile Cost Accounting

Mr. S. J. Palmer reported that considerable information had already been obtained for the Committee's report through correspondence with member companies.

The meeting discussed the relative advantages of keeping automobile costs by individual cars or grouped according to types. Mr. Palmer's investigations indicated the larger companies usually grouped their cars by types whereas the smaller companies preferred to keep costs on individual cars. As the number of companies operating sufficient cars to make the first method advisable were relatively few it was considered best to base the Committee's classification on the cost of individual cars.

The best method of distributing garage expense was also considered.

Uniform Accounting Nomenclature

The Secretary reported that comments on the tentative nomenclature for office, works and distribution employees had been received from member companies located in widely separated sections of the country, and a very encouraging interest in the work recorded.

Members of the Managing Committee were urged to send their comments promptly to Mr. Pettes.

Standard Classification of Accounts

After the report of the Chairman, Mr. W. J. Meyers, suggestions were made by the members relative to classification of boiler house labor, handling of residual accounts and changing title of New Business Expense to Sales Department Expense.

A joint meeting of the Standard Clas-

sification Committees of the A. G. A. and N. E. L. A. was held in New York City and adjourned to meet again April 19. The purpose of this meeting will be to harmonize the views of the two committees preparatory to a joint conference to be held at Chicago on April 21, with representatives of the National Association of Railway and Utility Commissioners. This conference will attempt to reach an agreement on standard classifications of accounts and standard forms of annual reports to be recommended for adoption by state utility commissions.

While the conference will have no authority to bind any commission a unanimous recommendation will have great weight and it is hoped the representatives of the utility corporations will go into the conference with harmonious and well clarified views of the things to be accomplished and the best means of accomplishing them. State Representatives of the Accounting Section have been requested to promptly furnish the Committee on Standard Classification of Accounts with any specific objections to accounting rules and report forms now in use which the experiences of the various companies have developed.

In addition the Committee has been in touch with the Michigan Gas Association relative to the adoption of a classification of accounts in that state.

A hearing will be held April 7 in Boston by the Department of Public Utilities of the State of Massachusetts to consider a re-classification of accounts for gas and electric companies and Mr. Meyers will be present at this hearing as the representative of the American Gas Association.

State Representatives

The Committee has secured for publication in this issue an article on "Tax Records and Accounting" by Mr. J. H. Smith, and information supplied to mem-

(Continued on page 300)

Lamps for Meter Readers and other Employees of Public Service Utilities

By GEORGE M. HERGESHEIMER, Philadelphia Gas Works, Philadelphia, Pa.

The question of lamps to supply meter readers and other employees with satisfactory light has, I believe given every gas company considerable concern, in view of the excessive maintenance cost—standard dry cell batteries such as are generally used for meter reading costing as high as 30½ cents and even now costing 22½ cents. In Philadelphia the cost was so excessive during war times as to demand that some thought and study be given the subject to promote economy. Not only was the cost of each battery greatly increased but the inferior quality of the material necessitated the use of a greater number of batteries.

Investigation and discussion soon convinced us that any appreciable saving would have to be effected through the adoption of a satisfactory storage or wet type of battery.

To find a satisfactory battery of this type we believed would prove difficult, as our experience with such batteries had been not only unpleasant but experiment proved them a failure. We nevertheless pursued our investigations and experiments but did not meet with any success until we met with the Connelly Porax Battery. This lamp with certain changes in construction recommended by us has not only proven satisfactory but from an economical point of view has given wonderful results.

The battery is rectangular in shape, about 3" wide, 4" high and 7⁄8" thick. The shell or casing is a transparent celluloid substance having the appearance of glass and being unbreakable. To this shell is attached terminal posts over which is fitted a plate of hard pressed fiber, to which is attached a lamp similar to the tubular dry cell pattern but only about 3⅝" long,

making the entire equipment about 7⅝" in length. Insulated cords pass from the positive terminal, through the lamp to the bulb which lights when contact is made from the slide bar at the side of the lamp. The lamp can be removed from the battery proper by unscrewing the small brass nuts on the terminal posts which, of course, must be done when the batteries are being recharged. The weight of this lamp fully equipped is a scant three ounces heavier than the tubular lamp equipped with a dry cell battery. A special bulb is used which is more costly than the tungsten bulb, initial cost only considered, but it has greater life and is not so fragile.

The charging outfit consists of a Pignolet voltmeter and rectifier, although the rectifier is not necessary when direct current is obtainable. In charging the batteries the vent cap at the top of the shell is removed and sufficient distilled water is added to cover the jelly-like substance about ⅛". About every four or five days a 10% solution of chemically pure sulphuric acid is used in place of the water. The batteries are connected in multiple with the charging attachment, *i. e.*, the positive of the charging attachment to the positive binding post of the battery; the negative of the charging attachment to the other binding post. Practically any number of batteries can be charged at a time, rectifiers being made to take care of 20 or 40 batteries at one charging. The batteries are allowed to remain on charge until the voltmeter reads 2.6 volts while the charging current is passing through them. The charging is handled by our night man and is such a simple operation that the average watchman is perfectly competent to handle it,—conse-

quently we have no labor charge in connection with the work. So simple is the method of charging that after the batteries are connected on the rack in series the man attending to the charging can leave them until the expiration of approximately eight hours when he tests the batteries by means of the voltmeter. No harm can occur even if the batteries are over-charged for an hour or more.

On completion of the recharging, the liquid is poured out without squeezing or pressing the shell or casing, the battery wiped clean with damp cotton waste and the binding posts now and then greased with vaseline to prevent corrosion. The vent cap is then replaced, the lamp reconnected to the battery and it is ready for service.

We obtain practically the same number of hours of service with this lamp as with the standard dry cell lamps generally used. The Connelly Porax battery is guaranteed to burn from 5 to 7 hours continuously as against the dry cell battery's 10 hours of continuous service. However, upon test we never were able to obtain such length of service as the dry cell lamps were supposed to furnish.

Before charging the lamp we test it by means of the voltmeter. If the battery reads less than 1.8 volts we know it will not serve through a day's work and it is ready for recharging. The lamp gives a sufficient volume of light for reading meters and all other purposes for which we require a lamp, and can be recharged for about $\frac{3}{4}$ cent per lamp. As the matter stands at the present time, we are able to do our meter reading with the Connelly Porax lamp at about $\frac{3}{4}$ cent which formerly cost us $22\frac{1}{2}$ cents or more, the latter sum being the approximate cost of the dry cell battery to-day. We have three of our districts equipped with this new style lamp and are gradually ex-

tending it to all other districts. In the district in which the Connelly Porax equipment was first used, and which incidentally is one of our largest districts, we recharged 1125 Porax batteries in 61 days, which figuring high at 1 cent per charge made an expenditure of \$11.25. Within this period we would have used about 1125 dry cell batteries at $22\frac{1}{2}$ cents or more per battery, which would have cost \$253.13. The saving by the adoption of the Connelly Porax lamp within 61 days is represented by \$241.88.

(Continued from page 298)

ber companies on accounting problems appears in the Question Box. The Committee continues to be of constructive assistance to member companies in this work and we trust our members will make full use of this service.

Service Letter on the Gas Oil Situation

Service Letter No. 7, on the gas oil situation was forwarded to all gas company members on April 10th. It summarizes the results to date of the investigation made by the Special Committee of the Executive Board—an investigation which is by no means finished, but which will be vigorously carried forward until full consideration has been given to all possible means of bringing relief from the present situation. Additional copies of the Service Letter will be sent to members on request.

"Off Peak" Prices for Coal

Edgar E. Clark, Chairman of the Interstate Commission, in a recent letter to Senator Cummins, Chairman of the Senate Committee on Interstate Commerce, puts the Commission's stamp of approval on the Frelinghuysen bill providing for the establishment of lower rates on coal in the summer months than in the winter months.

Tax Records and Accounting

By J. H. SMITH, Chief Clerk, Accounting Department, United Gas Improvement Company

THE method to be used in taking care of tax records while apparently simple, has proven more or less troublesome, both from a statistical and book-keeping standpoint.

In order that the information in reference to all tax payments may be in a convenient form, it is suggested that a book be prepared somewhat along the lines of the sample shown, marked "Form No. 1." By means of this book, a complete record can be kept of all payments.

The clerk in charge of this record should keep informed of the dates payments are due and should see that all tax bills are received and paid in ample time to avoid a penalty. This is important, as it very often happens that a tax collector does not mail a tax bill until a penalty has accrued.

A good plan is to make a memorandum in the Tax Record as to the due date, and by glancing over the record periodically, the one in charge can reduce to a minimum, the possibility of overlooking payment.

When a tax bill is received, it should be examined as to amount of assessment and rate, and if correct, the bill should be approved and passed to the bookkeeping department for entry on the books and payment.

It is suggested that all payments for taxes be charged to an account called "Taxes Paid" for convenience in locating tax payments and analyzing the account. This has been found advantageous for making up commission, Federal and other reports. The account would be a clearing account, the prepaid or accrued tax accounts to be charged with the correct proportions.

After the tax bills are paid, it is necessary to ascertain the specific twelve

months for which the tax is assessed and levied.

By "accrued tax account" is meant taxes unpaid and not due. As a matter of fact the taxes accrued during any one year includes all taxes applicable to the year, and therefore, represents the charges made to the operating tax account by the credits to "Taxes Prepaid" and "Taxes Accrued."

Journal entries should be made each month charging Taxes and crediting Taxes Accrued with the proportion of taxes accrued but not due, based on the amount of the tax rolls if made up, or if not made up, on an estimated amount based on the previous year taxes or any other reliable data.

Particular care should be taken to keep fully informed as to tax rates and assessments, in order that the correct accruals may be made.

Before closing the books at the close of the fiscal year a special effort should be made to ascertain the correct liability that should be shown on the books for tax bills unpaid.

When a tax payment is made covering a period prior to the date of payment, a comparison should be made between the amount accrued on the books and the amount paid and any difference adjusted through taxes.

In order that the monthly entries may be prepared without loss of time, it is suggested that a record be kept (Forms No. 2a and 2b) showing the proportion of each tax payment applicable to the month. This record can be divided between Taxes Prepaid and Taxes Accrued, and will show each month in convenient form the credit to be made to Taxes Prepaid and Taxes Accrued and will also show the amount taken up as an accrual for each class of tax.

Accounting for Property Withdrawn from Service*

PROPERTY RETIREMENT EXPENSE

"Charge to this account monthly such an amount as the Accounting Corporation may determine to be necessary to provide a Reserve against which may be charged the original cost of all property retired from service, plus the cost of dismantling, less salvage. The amount charged to this account and credited to 'Property Retirement Reserve' shall be in addition to the necessary cost of keeping the plant and equipment in a high state of efficiency through charges to the regular repair accounts."

PROPERTY RETIREMENT RESERVE

"Credit to this account such amounts as are charged monthly to the operating expense account 'Property Retirement Expense' to cover the original cost, plus cost of dismantling, less salvage, of property retired from service. When any tangible property is retired from service, the original cost thereof (estimated, if not known, and where estimated, that fact and the facts upon which the estimate is based shall be stated in the entry) shall be credited to the proper Fixed Capital account and charged, plus the cost of retirement, less salvage, to this account. If the credit balance in the account 'Property Retirement Reserve' is insufficient to cover the original cost of any property retired from service due to obsolescence or inadequacy, the entire cost or any portion thereof, may, with the permission of the Public Service Commission, be charged to the account 'Unamortized Fixed Capital' and carried therein until such time as it may be absorbed by the annual provision for this purpose. The amount credited to this account and charged to operating expenses shall be in addition to the neces-

sary cost of keeping the plant and equipment in a high state of efficiency through charges to the regular repair accounts."

UNAMORTIZED FIXED CAPITAL

"Charge to this account the book value of fixed capital abandoned or withdrawn from service in connection with improvement or betterment work or lost through extraordinary casualty when the balance in the account 'Retirement Reserve' is insufficient to provide for the charge."

The rule thus formulated, being a general one, is capable of different applications under varying circumstances. It will be noted that it provides for a Retirement Reserve, the amount of which is not to be estimated, on any theoretical life tables or any consideration of "useful life," but rather is to be determined by the management of each utility, based upon their judgment and experience, and the present circumstances and expected future conditions of each particular company. The program committee having requested a paper, not to exceed 1,500 words, prepared in such manner as to be a primer for the guidance of the accounting officers of the companies here represented, this attempt has been made to set forth concisely the procedure to be followed in accounting for property withdrawn from service.

Property withdrawn from service can be treated in the accounts in one of three ways:

1. Charged to Repairs in Operating Expenses.
2. Charged to a reserve created for that purpose.
3. Charged to "Unamortized Fixed Capital" pending its amortization.

Now, let us take up these three methods seriatim.

**Recommendations submitted by the Accounting Committee of the Empire State Gas and Electric Association.*

1. There can be no dispute that the replacement of a replaceable part of a plant unit is properly treated as a charge to "repairs" in operating expenses. Such charge is, of course, effected through the medium of the pay roll, representing labor employed in the replacement; sundry creditors' bills representing material furnished in connection with the replacement, and expense vouchers representing any miscellaneous expense incurred in connection with the project. These records should reach the Accounting Department through the usual channels and would contain information from the Engineering Department respecting the nature of the work performed from which the classification to the proper repair account would be determined.

2. A Reserve should be created under the title of "Retirement Reserve" by a monthly charge in operating expenses. There are several methods of setting up this charge. Your Committee believes that an amount based upon a pre-determined rate per thousand cubic feet or per kilowatt hour is the most desirable way of stating the monthly entry. When the replacement involves the withdrawal of an entire plant unit representing a comparatively substantial investment, the classification of such withdrawal to "Repairs" would distort the results of the company's operating during the year in which the replacement was made and would be unfair in that it would charge the consumers during one year for the entire cost of such replacement. In order to equalize this loss the establishment of a reserve is recommended.

As a matter of accounting the cost of withdrawal should be accumulated in a suspense account, entitled, for example "Withdrawal of No. 7 Babcock and Wilcox boiler Station." Such cost should reach the Accounting Department through the medium heretofore referred

to. It may be assumed that the greater part of the cost would consist of pay roll labor, although in some instances a contract might be made with a wrecking firm, in which case the charge would come through the medium of a sundry creditors bill.

When the withdrawal had been accomplished the Accounting Department should determine, if possible, the original cost of the property withdrawn. If such cost is not available in its records, the Engineering Department should be required to estimate the original cost of the withdrawn property, and based either on original cost or estimated original cost, an entry for the proper amount should be made charging the suspense account heretofore referred to and crediting the fixed capital account in which the withdrawn property has been heretofore carried.

If, as the result of the withdrawal, any salvage is obtained, either by (a) sale of property withdrawn or any part of it to a scrap dealer, or (b) transference of any of the property withdrawn to other projects, or (c) transference of any part of the property withdrawn to the store-room for further use—the appropriate account; viz: Cash, Accounts Receivable, Construction or Material and Supplies, should be debited and the suspense account heretofore referred to credited with such salvage. The result of this accounting will be that the corporation will have in the suspense account, heretofore referred to, three factors; viz:

- (a) Original cost (estimated, if not known) of the property withdrawn;
- (b) The cost of the withdrawal;
- (c) The salvage.

Combining these three factors, the net loss sustained by the company is determined and such net loss should be transferred by journal entry, upon the

(Continued on page 318)

ADVERTISING SECTION

GEORGE WILLIAMS, Chairman

CHAS. W. PERSON, Secretary

M. C. ROBBINS, Vice-Chairman

MANAGING COMMITTEE

At Large

BRILL, A. P., Pittsburgh, Pa.
CLARK, WM. J., Mt. Vernon, N. Y.
COLLINS, D. J., Philadelphia, Pa.
GOULD, WM., Boston, Mass.
GRIBBEL, W. G., Philadelphia, Pa.
HANLAN, JAMES P., Newark, N. J.
MCDONALD, DONALD, New York, N. Y.
MULLANEY, B. J., Chicago, Ill.
ROBBINS, M. C., New York, N. Y.
ROPER, GEO. D., Rockford, Ill.
RUTLEDGE, F. J., Philadelphia, Pa.
WILLIAMS, GEORGE, New York, N. Y.

Representing Affiliated Societies

ALLEN, GEO. W., Toronto, Can. (Canadian)
AUSTIN, E. E., Sumter, S. C. (Southern)
FRANKLIN, S. J., Millville, N. J. (New Jersey)
FUGATE, FRANK, Detroit, Mich. (Michigan)
HIGGINS, A. A., Providence, R. I. (New England)
JASPERSON, R. O., Chicago, Ill. (Wisconsin)
LESTER, F. M., Chicago, Ill. (Illinois)
MANTLE, G. D., Oakland, Cal. (Pacific Coast)
MARTIN, E. H., Des Moines, Ia. (Iowa District)
MULHOLLAND, S. E., Fort Wayne, Ind. (Indiana)
ROLSTON, R. J., Philadelphia, Pa. (Pennsylvania)

Wanted—A Publicity Representative for Every Gas Company

SOMETHING is the matter with our newspaper service. We are not obtaining the results that our efforts warrant, and instead of receiving a large number of clippings from our articles we get a few scattered ones. For the most part these come from the same men week after week.

We believe we can lay our hands on the trouble without any great difficulty. The service is not meeting with the success it should, because member companies have not appointed representatives to see that these articles go straight to their local editors and not to the wastebasket or to some dusty old file.

Sixty companies have appointed such representatives and they are the men who are keeping the service going. They are giving the Association the finest sort of cooperation and as fast as our articles are published in their local newspapers, they send clippings of them into Headquarters so that we may check up on them. One man in particular has our articles published in all five of his local

newspapers and we can tell to a day when the clippings of those articles will reach us. This is the kind of cooperation that makes one glad to be alive!

What could we do with this service had we three hundred men such as the above! Clippings would begin to flow in by the thousands and before long we would see our industry commented upon not alone in the news columns of our papers but in the editorial columns as well.

One of our latest news releases dealt with the oil shortage problem. It was written and mailed to our company members at a time when this subject was in the limelight of public discussion and was being talked about all over the country. We confidently expected to see this article published in at least one newspaper in the town of every company member of the Association, but it got in a very few papers, indeed, as the clipping returns prove.

The reason for this poor showing is obvious. The majority of our company

members sidetracked this article and never delivered it to their local editors. It was published by the New York City newspapers because the Secretary of this Section took the trouble to deliver it to them, and it would have been published by papers elsewhere had the editors seen it.

The easiest way to benefit from this news service is to appoint a representative of your company and charge him with the duty of delivering our articles to the editors as fast as they are mailed to him. This takes but very little time, the man so appointed will become interested in this work and by sending us his

name he will get our articles direct and all chances of their being lost, or filed or passed from hand to hand within your organization will be eliminated.

Once the articles have appeared in print, clippings of them should be sent to us, together with other articles of interest, as well as advertisements and advertising matter.

Let us have the name of your representative to-day. We have sixty already but we should have one for every gas company member of the A. G. A. and that is considerably more than three hundred.

450 B. t. u. Made a Permanent Standard for Canada

The standard of 450 B. t. u.'s, established throughout Canada by the order in Council of Nov. 24, 1919, as an emergency concession, for a period not to exceed four months from that date, has, as the result of further representations made to the Canadian Government in February last, been extended for a period of indefinite duration.

Who are the Gas Barons?

This is the subject of the third of the series of twelve specially prepared, illustrated newspaper advertisements which this Section has ready for its member companies. According to the schedule of publication dates already fixed, it is supposed to be run in the newspaper between May 3 and 17.

If you do not want to order the entire series, why not start now with this striking advertisement? It is not too late, for orders are coming in every day. If you want this advertisement only, your order will be filled promptly. It is the desire of the Committee having this work in charge, however, that member companies subscribe to the series, rather than to individual advertisements, with the idea in mind of stretching the campaign

over a period of a year.

There is not a gas company in the United States which does not need to tell its story to the public. The time to tell that story is now and the most effective way to tell it is to use these advertisements prepared by an Association which is representative of the industry. The cost of the service is trifling and the money required to place these advertisements in your local papers will not be spent but invested.

Why delay longer in considering this service when other companies using it are openly enthusiastic about it?

Send in your order for this advertisement and tell us you want the others, too.



Who are the Gas Barons?

They are the merchants, householders, teachers, clergymen, stenographers, lawyers, doctors, dentists, mechanics, policemen, widows, orphans,—people in all walks of life—who have a part or all of their savings invested in gas companies.

This great body of citizens is the backbone of the gas industry—an industry one hundred per cent American—which asks for the right to conduct its business on a profitable basis so as to maintain a reasonably satisfactory service and pay its investors a fair return on their money.

Among these investors are Life Insurance Companies and Savings Banks. Every individual who has a Life Insurance Policy or a Savings Bank deposit, is, therefore, vitally interested in having these institutions obtain a profit on their gas company investments.

In the truest sense of the word the gas industry belongs to the American people because it is owned by the American people and the profits (if there are any) are shared by the American people.

The next time you read or hear about "gas barons" you will know who they are.

(Insert the name of your Company here)

MEMBER OF THE AMERICAN GAS ASSOCIATION



Third of a series of twelve "good will" advertisements especially prepared for member companies. Price of series complete with matrices in three or four-column newspaper width, \$36.00. Price of electrotypes, same size, \$48.00. Order immediately.

What the Section is Doing

AT the third monthly meeting of the Plan and Scope Committee, held at Association Headquarters on the afternoon of March 26th, it was decided that inasmuch as the members of the above committee are all members of the Managing Committee and its chairman, Mr. M. C. Robbins, is vice-chairman of the Section, the work of the Section should hereafter be directed by the Managing Committee. This Committee consists of the following members:

Messrs. George Williams, Chairman; M. C. Robbins, vice-chairman; B. J. Mulaney, W. J. Clark, W. G. Gribbel, A. P. Brill, D. J. Collins, William Gould, J. P. Hanlan, Donald McDonald, F. J. Rutledge and George D. Roper.

The Secretary reported that five news articles had been issued to gas company members of the Association and to the large press associations since the last meeting of the Committee, and that orders for the series of "good will" advertisements are being forwarded to Headquarters in generous numbers from all parts of the country. The subjects to be covered in future advertisements were discussed and it was decided to have two or perhaps three advertisements explain the accuracy and mechanical construction of the gas meter.

The Committee was informed that company officials are keeping a closer watch on the reading matter, especially the editorials, appearing in their local

newspapers, as is evidenced by the increasing number of articles attacking the industry which are being sent to the Association. After each article is received the editor or person responsible for its publication is written a friendly letter by the Association. This letter takes up the misstatements one by one and challenges them with the truth, giving facts and figures in such a way that the person's sensibilities will not be offended, and he will be impressed with the fair and impartial attitude of the Association, which is to combat misinformation with its only effective cure—information.

The Association's work in this respect, however, does not stop with the mere writing of a letter. In every instance the co-operation of the company sending in the clippings is requested and the company is asked to have one of its officials call upon the editor or person in question and tell him in an amicable and kindly manner the things he should know.

Attacks made upon the industry by an editor in Grand Rapids, or Los Angeles, or Richmond or any other city in the country, will never stop because an Association over in New York doesn't like them and writes the editor a letter to that effect. But when the subscribers to the editor's paper, who are the people in his own town, call on him and tell him that they don't like them, he will see the light and eventually change his tactics.

(Continued on next page)

Right

"When publicity is given to the thing you want to do, progress of the most helpful kind is the invariable result."—
A. P. Brill.

The majority of attacks made upon the industry are due to ignorance and to a superficial knowledge of its problems and not to personal disaffection. The Managing Committee of this Section believes that everyone in the industry should take immediate cognizance of this fact and cooperate to the fullest extent with the Association in getting the facts and figures of our business before the public in a way that will engender friendliness.

At this meeting of the Plan and Scope Committee, a sub-committee consisting of Messrs. Hanlan, Stotz and Person was appointed to draw up plans for the Publication and distribution to gas company members of pamphlets and booklets designed to stimulate equipment and appliance sales in connection with the Sales Campaign Schedule.

The next meeting of the Committee will be held at Association Headquarters, Friday, April 30.

How the Small Gas Company Can Get a Publicity Man

If there was a time when the value or necessity of publicity for a gas company was questioned, that time has passed. Today publicity is valuable and necessary for about everything on the face of the earth except moonshine distilleries.

Granted, you say, but what can the small gas company, which cannot bear the expense of a regular publicity man, do along this line? The small company can secure the services of a reporter or city editor on one of its local papers during his spare time for a small weekly sum. In these days of high living costs, ten or fifteen dollars a week looks mighty good to a reporter in a small city. He will be worth many times that sum to the gas company. He can write the news articles which tell the company's side to the public; he can prepare or assist in the preparation of advertising copy and he can write the educational facts for distribution among employees.

It should be easy for a gas company to find a newspaper man to do this work. He usually will have no difficulty in getting the consent of his employer to look after the company's publicity during his time off. For a small expenditure, the company will have the services of a man

trained in publicity who knows the secret of getting the truth printed in a newspaper.

Another Costly Lesson in Municipal Ownership

The citizens of Wakefield, Massachusetts, have instructed the municipal light board to make a contract with an out of town corporation for the purchase of gas. This action means the abandonment of the local gas plant, which has supplied the town for the last 26 years. A committee reported that the losses have aggregated \$14,000 since the town bought the plant and that the shortage last year was \$4,000.

"When expert gas men have difficulty in paying expenses," says the Providence Journal, "untrained town officials have little chance of succeeding. Wakefield has had its lesson and other communities will profit by referring to it whenever the municipal ownership craze gets another start in New England towns."

WANTED—Positions are open in large eastern natural gas company for man capable of taking charge of appliance testing laboratory, also several men capable of selling natural gas to industries, particularly men who can design and install burners and furnaces. Applications should give full details of training, experience, salary, etc., addressed to American Gas Association.

Key No. 8.

Sales Activities that Spell Success

The Denver Gas and Electric Light Company is one of the notably successful and progressive companies in the country. Speaking of its publicity and sales policy, Mr. Clare N. Stannard, Secretary of the Company, writes:

"At the present time we are planning to concentrate our advertising for a given period on gas-consuming specialties selling for an average price of better than \$300 each, consuming less than 100 feet of gas per hour, with a load factor of about 50 per cent. This line includes coffee urns, dishwashers, etc.

"We are great believers in "Cook With Gas" campaigns which should be thoroughly advertised and conducted in such a way as to interest the public and create a demand for gas appliances. We have a Demonstration Hall fitted up for cooking demonstrations and lectures, accommodating 250 to 300 ladies and in addition to this we have on a number of occasions rented the City Auditorium, conducting demonstrations there and entertaining immense crowds.

"Occasionally, during the year, attractive stickers are prepared and attached to the monthly bills calling attention to some particular appliance on which we are specializing.

"We have been very successful in what we term Service Supervisor work, viz.: each Supervisor takes 300 names from the books and calls at the houses, asking about the service and making any small adjustments of burners, etc., which may be necessary and reporting more serious complaints to the office. While there he endeavors to ascertain that all gas-consuming appliances in the house are in use and seeks to interest the consumer in additional appliances and uses for gas. This work has resulted in our displacing a number of coal ranges and making all

gas kitchens; in fact we have about 25,000 all gas kitchens in the city today. In this connection all new residences are followed up very closely to make sure that provision is made for the complete use of gas. As soon as building permits are published we immediately send letters to the builders or owners setting forth the appliances we have to offer in the way of labor saving devices and volunteering our services in planning a complete gas installation. These letters are followed up by personal solicitation on the part of our Representatives.

"When a range sale is made to a new gas consumer we have found it an excellent policy to send out a lady demonstrator to very thoroughly explain the various uses of gas, and then have the Service Supervisor follow up the installation to make sure the range is giving perfect service.

"It is our policy to be constantly watching out for new lines of appliances, thus endeavoring to keep our stock of gas-consuming, labor-saving devices up to date.

"We maintain an industrial manufacturing department completely equipped to make special burners and appliances suited to the needs of prospective customers. Through this we are able to apply gas for many purposes where ordinarily other fuels would be used. Among these might be mentioned a doughnut machine burning 500 feet of gas per hour, steam tables of various kinds, ovens, burners for furnaces, etc.

"Last Fall we completed and have in successful operation a house heating installation, paying us about \$90.00 per month. The people are well satisfied with the bills, which leads us to believe that we have a number of prospects in this line which we will energetically work in the future."

COMMERCIAL SECTION

C. A. MUNROE, Chairman

LOUIS STOTZ, Secretary

J. P. HANLAN, Vice-Chairman

MANAGING COMMITTEE — 1920

At Large

BARROWS, GEO. S., Providence, R. I.
BARTLETT, C. E., (Mfr.) Philadelphia, Pa.
BENNETT, GEO. E., New York, N. Y.
BOND, C. O., Philadelphia, Pa.
BUCKMINSTER, ROLLIN, Pawtucket, R. I.
BURNS, J. J., St. Louis, Mo.
CHRISTMAN, H. S., Philadelphia, Pa.
CLARK, H. H., Chicago, Ill.
CLARK, W. J., Mt. Vernon, N. Y.
DAVIES, J. E., Chicago, Ill.
DODSON, H. K., Baltimore, Md.
DOULL, R. S., New York, N. Y.
ELSMAN, RALPH, Brooklyn, N. Y.
GASTON, LUTHER, Spokane, Wash.
GOULD, WM., Boston, Mass.
HUNTER, HARRY W., (Mfr.) Baltimore, Md.
JARDINE, BERT H., Knoxville, Tenn.
JASPERSON, R. O., Chicago, Ill.
KARSHNER G. M., New York, N. Y.
KING, THOMSON, Baltimore, Md.
KNAPP, F. H., (Mfr.) Pittsburgh, Pa.
LOBELL, H. O., New York, N. Y.
MACSWERNEY, J. P., Rochester, N. Y.

MAXON, H. R., (Mfr.) Muncie, Ind.
MUNROE, C. A., Chicago, Ill.
MYERS, J. B., Philadelphia, Pa.
PEFFLY, I. W., (Mfr.) New York, N. Y.
PETTENGILL, H. J., Jr., Woonsocket, R. I.
PISER, THEO. H., Boston, Mass.
POST, A. P., Philadelphia, Pa.
RASCH, W. T., New York, N. Y.
STANNARD, CLARE N., Denver, Colo.
TRUMBULL, G. R., New York, N. Y.
VINCENT, G. I., Syracuse, N. Y.
WRIGHTINGTON, E. N., Boston, Mass.

Representing Affiliated Societies

BARTON, WM. H., Portland, Ore. (Pacific Coast)
BORDEN, A. W., Hastings, Nebr. (Iowa Dist.)
BOWLIN, M. A., Macon, Ga. (Southern)
BRANDES, JEROME, Chester, Pa. (Pennsylvania)
BURKE, E. J., Indianapolis, Ind. (Indiana)
CHAMBERLAIN, G. R., Grand Rapids, Mich. (Michigan)
CRAFTS, H. C., Pittsfield, Mass. (N. E. Gas Eng.)
FLAUT, J. J., New Orleans, La. (South Central)
HANLAN, J. P., Newark, N. J. (New Jersey)
MCINTYRE, W. H., Ont., Can. (Canada)
ST. JOHN, JOHN, Madison, Wisc. (Wisconsin)

CHAIRMEN OF SECTION COMMITTEES ORGANIZED TO DATE

Sales Development—WM. GOULD, Boston, Mass.
Compensation (Sub)—G. M. KARSHNER, New York, N. Y.
Filling in the Valleys in Gas and Appliance Sales (Sub)—WM. GOULD, Boston, Mass.
Maintenance (Sub)—ROLLIN BUCKMINSTER, Pawtucket, R. I.
Putting Non-Profitable Consumers on a Profitable Basis (Sub)—B. H. JARDINE, Knoxville, Tenn.
Sales Campaigns (Sub)—H. J. PETTENGILL, Jr., Woonsocket, R. I.
Work Schedule (Sub)—G. I. VINCENT, Syracuse, N. Y.
Gas Lighting—THEO. H. PISER, Boston, Mass.

Heating—GEO. E. BENNETT, New York, N. Y.
Industrial Fuel Sales—H. H. CLARK, Chicago, Ill.
Furnace Performance Standards (Sub)—I. LUNDGAARD, Rochester, N. Y.
Improvement of Atmospheric Burners (Sub)—JEROME BRANDES, Chester, Pa.
Proportional Mixing (Sub)—CHAS. C. KRAUSSE, Baltimore, Md.
Recuperation and Regeneration (Sub)—H. O. LOEBELL, New York, N. Y.

Managing Committee Meets in Chicago

EIGHTEEN members of the Managing Committee met in the office of Chairman Munroe in Chicago on March 18 and discussed many phases of commercial matters.

Encouraging progress was reported by the various Commercial Section committees—the Work Schedule Committee having already prepared the preliminary draft of its report and recommendations. A meeting of the Committee will be held in the near future, and the report will be approved in its final shape and presented to the membership through the MONTHLY.

The Committees on "Compensation of Sales Representatives", "Maintenance", "Filling in the Valleys in Gas and Appliance Sales", "Gas Lighting", "Sales Campaigns", "Non-Profitable Consumers", and "Heating" are all well advanced in their plans for being of real service to the membership. As far as possible the reports of these committees will be published before the annual meeting. The Industrial Fuel Sales Committee is having prepared short and informative papers dealing with applications of gas to various industries, and these will also be published in advance of the annual

meeting and later discussed there in the Commercial Section sessions.

Among the decisions reached at the meeting were several which all commercial men will welcome as steps in the proper direction—the consensus of opinion as expressed will, if generally adopted, eliminate the old terms “New Business” and “Commercial” department and replace these with the modern term “Sales Department” and correspondingly the head of the department should be known as “Sales Manager” and his corps of salesmen as “Sales Representatives.” There is a certain dignity in such titles which would be in keeping with the importance of this department and which should be more generally recognized.

A discussion of the subject “Continuity of the Sales Department” brought out the fact that in periods of business depression the Sales Department was usually the first to be discontinued and that such a condition would probably not have been the general rule had Sales Departments been operated on a self-supporting or profitable basis.

It was, therefore, the sense of the Managing Committee that the merchandizing of gas consuming appliances is a proper and desirable function of the members of this association, whose merchandizing departments should be so conducted as to be not alone self-supporting but to show a profit, and further, it is considered desirable that the New Business or Appliance Department be known as Sales Department and the head of the department designated as Sales Manager.

The subject of the non-profitable consumer and the means for putting him in the profitable class was discussed at some length. The suggestion was made that the discontinuance of the “minimum” charge and the adoption of a “readiness-to-serve” charge would automatically

take care of the non-profitable consumer problem.

It was the sense of the meeting that the Managing Committee recommend for the consideration of the Executive Board that the subject of adequate rates and their proper publicity be given due consideration.

Another thought advanced in the discussion of the subject “Compensation of Sales Representatives” was the advisability of having high grade and experienced floor salesmen. The sales floor offers many opportunities for creating good will and the floor sales representative should be one who has a thorough knowledge of the company’s business and policy and of the appliances offered; in other words, the positions on the sales floor should be considered as promotions and given to the men who make the best records in their territory.

The advisability of the association preparing a series of publicity folders, which could be sold to gas companies for general distribution in their territories, was discussed at length and it was decided that this was a matter for joint committee action by the Commercial and Publicity Sections.

Record Attendance at Illinois Gas Association Meeting

As a further evidence of the growing tendency on the part of those in the gas business to recognize the value of getting together to discuss common problems, more than one thousand delegates attended the annual meeting of the Illinois Gas Association in Chicago on March 17th and 18th.

Many of those present came from considerable distances outside of the State. The program as carried out dealt with many important problems which were fully discussed.

Plan Your Sales Activities Ahead

IF you were conducting some other merchandising business would you plan all the details of your sales campaign well in advance? Of course you would. The successful gas company sales manager who has recognized this fundamental principle of good merchandising practice will, so far as his local conditions permit, adopt the schedule recommended by the Sales Campaign Committee.

This schedule (which appeared again in the April issue of the A. G. A. MONTHLY) suggests that for the first two weeks in May special effort be made to impress upon consumers the advantages of an "all-gas-kitchen" and the use of proper cooking utensils.

In the third week of May the many features of convenience and service in connection with the use of a modern gas range oven should be demonstrated. The education of consumers to these advantages will make them more satisfied users of gas in even larger quantities.

During the fourth week an opportunity presents itself for the sale of high grade gas appliances to the June bride, or to those who wish to give useful gifts to the prospective bride.

During the first week in June the modern laundry, with its many gas consuming labor-saving devices as a solution of the servant problem should be featured.

Why is it that gas companies generally do not push the sale of gas ironing machines and other high priced gas appliances? Go into any progressive department store and see the large number of gas appliances, each selling for a hundred dollars or more, being disposed of by these merchants daily. Is there any good reason why the gas company should not be getting a large share of such profitable business?

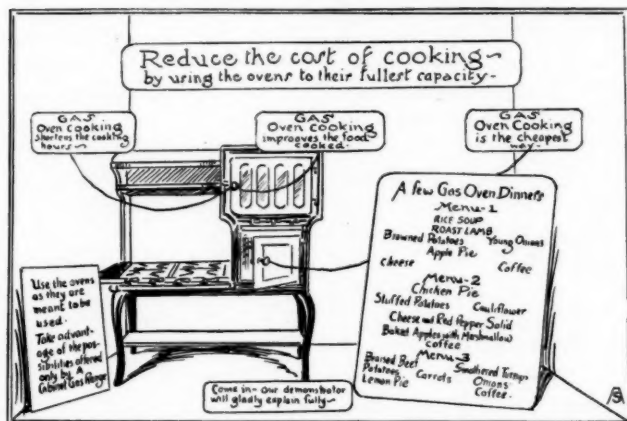
We have heard it stated that the sales departments of gas companies, which in a majority of cases were practically disbanded during the war period, have not gotten back to a normal basis, and the manufacturers are therefore compelled to move their product through the only other logical channels—the department stores and dealers. How long this condition will exist we cannot tell,—we believe however that such a policy is not working for the best interests of the industry. We know also that the purchasers of gas appliances are buying high grade and costly appliances elsewhere than from the gas company. The sales managers of most gas companies are in favor of conducting their departments on a permanent and profitable basis; the manufacturers would then have assurance of distribution for their factory output, and the continuity of the sales department which is the main point of contact between the company and the consumer, would remain unbroken. If this department can show a profit in its transactions and when properly run it does,—why cut off such a source of revenue at any time? The managers of gas properties are asked to consider this question seriously.

To the sales manager the suggestion is made that he plan his sales campaigns based on the A. G. A. schedule. If this suggestion is carried out it requires careful planning, but the results will justify the effort. The sales representative must be kept interested and have assurance that so long as he makes good his position is a permanent one. He is the connecting link between the company and the customer and should have a thorough understanding of the company's policies and sales plans and his relation to them. Above all he must know the goods he is

(Continued on page 318)

Window Displays and Publicity Material to Fit Sales Schedules

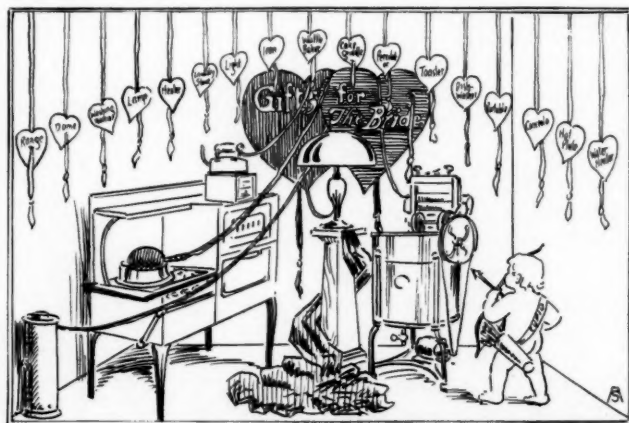
The Twelve Months' Sales Schedule



Display for Third Week in May

14a

Place the range on one side, cards arranged to balance. Feature instructive talks on proper use of the oven for cooking entire meal. Suggested that if possible actual demonstration of cooking a meal be made in the window or on the sales floor.

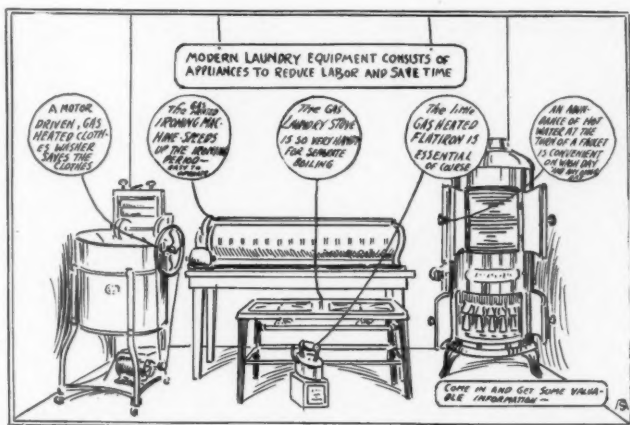


Display for Fourth Week in May

14b

Gas appliances useful to the Newlyweds are shown, tied with red ribbons to cut-out red hearts in the center of the background and lettered "Gifts for the Bride." Narrow ribbons hung from the ceiling are knotted at the lower end and threaded through red paper hearts and neatly worded "Gas Appliance Gift Suggestions."

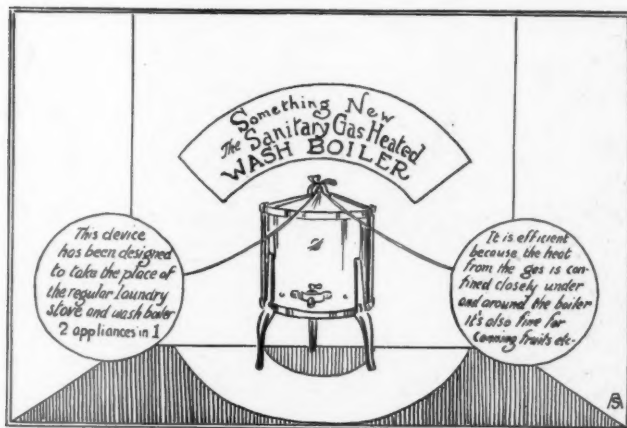
A cut-out of Cupid ready to shoot the arrow will lend attractiveness to the display.



Display for First Week in June

14c

There are many gas consuming laundry appliances with which the public is not familiar. This display will undoubtedly create interest and lead to many sales. The arrangement of this display will indicate the many appliances that can be used to lighten the burden of such work.



Display for Second Week in June

14d

The gas heated wash boiler is a practical and useful appliance which should be featured. Bright colored ribbons and cards may be so arranged that the service features of such displays are emphasized.

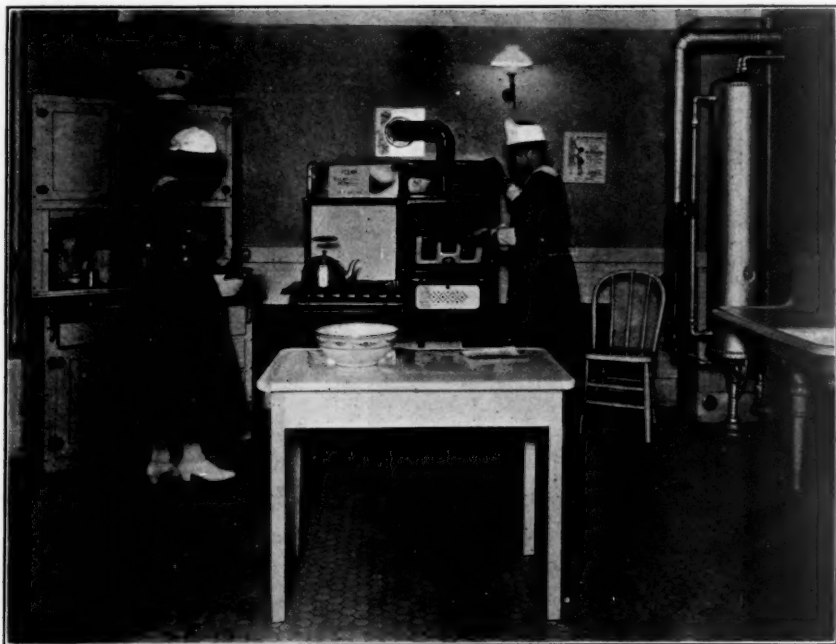
Attractive Display Rooms Bring Good Will and Large Sales

THE average person likes to be shown before buying. There is a strong appeal to the prospective purchaser in the modern home exhibit which has been installed in the Peoples Gas Building in Chicago.

This "Exhibition Hall" was opened to the public on November 18, 1919, and from the very beginning has been a success. There are many features about the exhibit, such as the simplified method of piping, use of the "Concealo" outlet, proper method of lighting, as well as the display of various types of modern gas appliances for the home, which are of particular interest to the architect as well as the general public.

On going down the broad marble stairway, leading to the model home exhibit, the first thing that greets you is a warm blast of air from a heater set in an ornamental fireplace and mantel, located on the landing directly at the foot of the stairway, and on each side of the fireplace stands a handsome floor lamp.

Visiting the exhibition hall you find many arrangements provided for your comfort and convenience. There is a model "Living Room," usually advertised as a "Rest Room for Customers." Here are provided comfortable chairs, lounge, writing tables, magazines, daily papers and telephone facilities.



The Model Kitchen—Peoples Gas Company



The Modern Laundry—Peoples Gas Company

Tea and pastry is served daily in an up-to-date "Dining Room," which is equipped with ideal lighting units and heating appliances, and the up-to-the-minute kitchen, where all the pastry used in the company's dining room is cooked, is a model of excellence which has a strong appeal to the customer. Cooking demonstrations are given daily in the model kitchen.

A "Model Laundry" fully equipped with washing machine, mangle and dryer, with daily demonstrations going on continuously, is another appealing feature of the exhibit.

An entire room is devoted to the display of various types of lighting fixtures lamps and shades, all illuminated. This makes a most pleasing and attractive picture and conveys to the mind a true conception of the lighting effects for each

type of unit. There is also a "Gas Range," "Water Heater" and "House Heating" section, where a complete line of all such appliances and systems sold by the company is on display.

There can be no doubt but that a favorable opinion, or otherwise, is created in the minds of the company's customers just as the company's offices and display rooms are attractive or not. The inclination is to purchase where the surroundings are the most pleasant and the service the best.

We recommend that all our member companies take this occasion to inspect and decide whether they could not, with profit to the company and more satisfaction to the customers, put their displays in perfect order. It will pay in dollars and cents from direct sales and build up a good will for the company.

(Continued from page 313)

selling. Primed with this information as well as a word of commendation when he is putting forth his best effort, results will surely follow.

If possible some one should be delegated to handle the various details of the sales campaign. The window displays should compare favorably with those of local merchants; the newspaper advertisements should carry a real message, (more than a mere statement that the gas company has a full line of gas appliances and to come in and see them); the gas bills should carry the same message which is conveyed through the newspaper advertising, window displays and by the salesmen.

As stated elsewhere in this issue the Managing Committee of the Commercial Section has recommended to the Executive Board that some action be taken by them to advocate the placing of the Sales Departments of gas companies on a permanent and profitable basis.

Once a real sale service and all that the term implies is established the foundation will have been laid for a permanent, successful and profitable Sales Department, whose operations will be continuous and not subject to interruption at any time.

The Canadian Gas Association

A cordial invitation is extended to all gas men to attend the Thirteenth Annual Convention of the Canadian Gas Association at Ottawa, Canada, Friday and Saturday, August 27 and 28.

Hotel reservations can be arranged through the Secretary, George W. Allen, 19 Toronto Street, Toronto, Canada, who will also supply full information regarding the meeting.

(Continued from page 295)

James B. McGinn
August R. Munz
George A. Pennington
Elwood G. Singley
WISCONSIN
Beloit Water, Gas & Electric Co., Beloit
George F. Dequaine

(Continued from page 304)

completion of the project, to the debit of the Retirement Reserve account.

3. Your Committee have felt it necessary to go one step farther in providing for retirements in order that the industries we represent might have a further measure of protection against the possibility of any great loss occasioned by extraordinary casualties, floods, conflagrations, riots, earthquakes, tornadoes and similar catastrophes. If such a loss should be sustained at a time when the Reserve was insufficient to cover it, the same accounting procedure as described under No. 2 should be followed to the end that there would be in the suspense account, under the title of, for example, "Conflagration—Thursday, October 23rd 1919" the net loss sustained by the company on that date. Such net balance when the final results are known, to the debit of the account "Unamortized Fixed Capital" which debit balance would be amortized over subsequent years by augmenting the monthly charge in Operating Expenses. As a result the Reserve will be increased to a sufficient amount to provide for the loss caused by the conflagration.

ACCOUNTING COMMITTEE,

H. O. PALMER, *Chairman*
H. M. BRUNDAGE
A. D. DUDLEY
P. B. MURPHY
E. C. SCOBELL

Modern Trade Associations

A series of articles describing the internal workings of national trade organizations and associations is being published in *Printer's Ink* under the joint authorship of C. H. Rohrbach and John Allen Murphy. In the March 25th issue, the third article of the series appears under the heading "Raising the Funds for the Association Campaign." In this article the American Gas Association is mentioned and the details of how it is financing itself are explained.

MANUFACTURERS SECTION

W. GRIFFIN GRIBBEL, Chairman

GEORGE S. BARROWS, Vice-Chairman

W. W. BARNES, Secretary

MANAGING COMMITTEE — 1920

At Large

BARNES, W. W., New York, N. Y.
BARROWS, GEORGE S., Providence, R. I.
BRILL, A. P., Pittsburgh, Pa.
BRUCE, HOWARD, Baltimore, Md.
COLLINS, D. J., Philadelphia, Pa.
CONROY, J. F., New York, N. Y.
CRANE, WM. M., New York, N. Y.
DEHART, J. S., Newark, N. J.
GRIBBEL, W. GRIFFIN, Philadelphia, Pa.
HUTCHINSON, W. P., Bridgeport, Conn.
LOHMEYER, H. B., New York, N. Y.
MASON, SIDNEY, Gloucester, N. J.
NORTON, HARRY A., Boston, Mass.
PEFFLY, IRVING W., New York, N. Y.
REES, RICHARD, Kalamazoo, Mich.
ROBERTS, EARL W., Detroit, Mich.

ROPER, GEO. D., Rockford, Ill.
SCHALL, H. D., Detroit, Mich.
STITES, TOWNSEND, Gloucester, N. J.
WICKHAM, LEIGH, St. Louis, Mo.

Representing Affiliated Societies

BABCOCK, C. B., San Francisco, Cal. (Pacific Coast)
BARTLETT, C. R., Philadelphia, Pa. (Pennsylvania)
CHAPIN, C. H. B., New York, (Empire State)
ECCLES, GEO. W., Waltham, Mass. (N. E. Gas Eng.)
GIBSON, W. R., Toronto, Can. (Canadian)
LONG, H. J., New Brunswick, N. J. (New Jersey)
MCCULLOUGH, CHAS., Milwaukee, Wis. (Wisconsin)
MILLER, THOS. D., Detroit, Mich. (Illinois)
SEIDENGLANZ, C. H., Dallas, Texas. (So. Central)
SCHALL, H. D., Detroit, Mich. (Michigan)
WARREN, W. M., St. Louis, Mo. (Iowa Dist.)
WESTON, J. A., Lansing, Mich. (Indiana)

CHAIRMEN OF SECTION COMMITTEES ORGANIZED TO DATE

Membership—WM. M. CRANE, New York, N. Y.
Apparatus Makers—D. J. COLLINS, Philadelphia, Pa.
Nomination—WM. M. CRANE, New York, N. Y.
Exhibition—W. GRIFFIN GRIBBEL, Philadelphia, Pa.
Trade Acceptances (Joint Com. with Acc. Sect.)—GEO.
H. WARNER, New York, N. Y.
Illustrated Lectures—GEORGE S. BARROWS, Chairman
Division of Meter Manufacturers—DONALD McDONALD,
Chairman, W. P. HUTCHINSON, Vice-Chairman
Division of Gas Range Manufacturers—WM. M. CRANE,
Chairman, I. W. PEFFLY, Vice-Chairman
Division of Water Heater Manufacturers—H. J. LONG,
Chairman
Division of Office Labor Saving Devices Manufacturers—
H. B. LOHMEYER, Chairman, E. J. FERRIS, Vice-
Chairman

Division of Heating Appliance Manufacturers—GEO. S.
BARROWS, Chairman
Division of Industrial Appliance Manufacturers—S.
TULLY WILLSON
Division of Lighting Appliance Manufacturers—J. P.
CONROY, Temporary Chairman
Division of Apparatus & Works Manufacturers—J. S.
DEHART, JR., Temporary Chairman
Division of Supply Manufacturers—R. MUELLER, Tem-
porary Chairman
Division of Accessories Manufacturers—B. RYAN, Tem-
porary Chairman

"Success waits upon ability and loyalty, Let's go!"—Geo. B. Cortelyou



The Seal of

STANDARD PRODUCT AND ASSOCIATION SUPPORT

All company members, Manufacturers Section, are urged to use the above emblem on all stationery, catalogues and literature as company members of this Association.

Division Activity

It has been demonstrated without a doubt that the suggestion of grouping manufacturers into divisions pertaining to their product was a very satisfactory step in our Section work.

The Division of Gas Range Manufac-

turers was called for a meeting on March 18, at the Hotel Sherman, Chicago to consider a communication from the Department of Interior, Bureau of Mines, on Natural Gas Conservation, the National Committee on Natural Gas Conser-

vation having appointed a sub-committee to make a special study of natural gas utilization problems and then to report back to the National Committee at its meeting in Washington on March 27.

At the meeting held in Chicago, the subject of gas appliance construction for natural gas use was discussed and a committee consisting of Wm. M. Crane, H. D. Schall, H. W. Hunter and A. M. Kahn, was appointed to represent the Gas Range Manufacturers Division at the meeting in Washington on March 27.

At this meeting a protest was made by the representatives of the Division against any legislation in gas range construction. After the manufacturers' side of this problem was ably presented by the representatives appearing in the interest of the Manufacturers Section of the A. G. A., the assurance of the National Committee was given that no legislation could be made touching on gas range construction.

A transcript of the meeting is now in the course of preparation and when edited will be published in the next issue of the A. G. A. MONTHLY for the benefit of our Manufacturer Company members.

Statistics

The membership of the Section has been circularized asking for information relative to the output and value of the various products for the years 1918 and 1919 in which our members are interested. This information should be divided wherever possible where appliances are manufactured. This information is accepted by the Secretary in confidence and after the data is secured and published, it will be returned to the companies co-operating in this important work for their own files. Companies who have not as yet responded to our request are asked to do so at the earliest possible moment in order that facts pertaining to our branch of the industry may be pre-

pared and published showing our progress during the past two years.

Own Your Home Exposition

The American Gas Association will occupy Booth No. 549 at the "Own Your Home" Exposition to be held at Grand Central Palace, New York City, May 1 to 8.

Group publicity has been taken advantage by the following companies:

Quick Meal Stove Company.
Geo. M. Clark & Co. Div.
Champion Stove Works.
Union Stove Works.
General Gas Light Co.
The Kompak Company.
The Sanitary Heating Company.
A-B Stove Company.
Backus Heater & Foundry Co.
Illinois Specialty Co.
Lovekin Water Heater Co.
Perfect Combustion Co.
James B. Clow & Sons.
Detroit Stove Works.
Abram Cox Stove Co.
Milwaukee Gas Specialty Co.
Reliable Stove Co., Div.
Pittsburgh Water Heater Co.
General Gas Appliance Co.
Humphrey Company.
Roberts & Mander Stove Co.
Strause Gas Iron Co.
Wm. M. Crane Co.
Bryant Heater & Mfg. Co.
The Michigan Stove Co.
Welsbach Company.
John J. Griffin & Co.
The Eclipse Stove Co.
The Baltimore Gas Appliance & Mfg. Co.

A representative from the Headquarters Staff will be in attendance at the booth during the week of the exposition and will distribute the literature of the companies who have subscribed towards the expense of this publicity, giving full information to all inquiries relative to modern gas appliances to be used in the home.

Membership Campaign

Our Membership Campaign has not progressed as encouragingly as we had hoped, but during the past week a little impetus has been given whereby companies who have not before affiliated

with us have been interested in taking membership. These companies will be found in the list of new members pub-

lished elsewhere in these pages. Our Membership Campaign records nineteen new members to date.

Our Membership Campaign Is Launched

Honor Roll

GEORGE W. PARKER,	—	10 Manufacturer Company Members
CLARENCE H. FRENCH,	—	1 Manufacturer Company Member
RICHARD REES,	—	1 Manufacturer Company Member
H. A. NORTON,	—	1 Manufacturer Company Member
J. B. KLUMPP,	—	1 Manufacturer Company Member
HEADQUARTERS,	—	5 Manufacturer Company Members

Total Manufacture Company membership to date 191 members.

Remember our goal 300 members.

Water Heater Manufacturers Division

The Division of Water Heater Manufacturers had referred to them a communication addressed to the Association relative to the effect of city water on water heater connections. In the districts referred to the gas company had always used galvanized iron pipe for heating and in another territory controlled by the same gas company, brass pipe was provided for the same purpose.

In the first district, the water came from small streams which emptied into a navigable river; the streams were supposed to be uncontaminated and not filtered. In the latter territory, the water passed through an elaborate process of filtration and the resulting water was probably as pure as in the other two cities from a sanitary standpoint. The question arose as to whether there were acids or other elements in the filtered water which affected the galvanized pipe more than the water which was not filtered; testimony from plumbers and others being conflicting.

This matter was put before the Division and a very prompt response was made through the chairman, H. J. Long

who gave the consensus of the opinion from all the members of the Water Heater Group.

From personal observation a large part of the corrosion of iron pipes is due to high temperature, there being scarcely a city in the country where galvanized pipes are not stopped up or corroded under certain conditions. Corrosion is very rapid where the heaters or hot water tanks are connected where there is no temperature control and in which the water at times becomes very hot. Coal heated boilers have been the prevailing method in the past with the result that plumbers and architects who have experienced corrosion due to that cause have recommended the use of brass pipes instead of iron. In many localities today gas water heaters are installed which are thermostatically controlled and they operate successfully for a long period of years with iron pipes where the ones controlled with coal heaters do not. The answer of those of wide experience who gave consideration to this question is that any style of automatic gas heater that is thermostatically controlled can use galvanized iron pipe with success in the territory of the inquirer.

Annual Convention and Exhibition

The Annual Convention and Exhibition will be held the week of November 15-20, 1920, at the Hotel Pennsylvania, New York City. The prospectus covering the exhibition is now in the hands of the printer and will be mailed to our Manufacturer Company members as soon as released. The cost of space as decided by the Managing Committee will be \$1.50 per square foot. One space will be sold to each exhibitor, preference being given to applicants in the order the applications are received.

The exhibition will be held on the roof of the Hotel Pennsylvania in the Roof Garden and Butterfly Rooms where exhibits this year will be segregated so that commercial men interested in gas appliances will find them all in one location, accountants will find office labor saving devices in another and for the engineer, supplies and accessories in another. This display will prove very interesting to those in attendance at the Convention, as the groups in that way will be more satisfactorily demonstrated to those who are interested in their particular field of endeavor.

The Exhibition Committee will do everything in their power to make the Exhibition of unusual interest to all exhibitors and delegates attending the Convention and to awaken an interest in newcomers to the great advantage of the wide publicity that an exhibition of this character gives.

Mid-West Conference

The Conference of the Manufacturers Section held at the Hotel Sherman in Chicago, on March 18, 1920, had a fair attendance. The activities of the Section as published in previous issues of the A. G. A. MONTHLY were submitted to those in attendance by the Chairman, W. Griffin Gribbel.

Patriotism

I think my country needs my vote
I know it doesn't need my throat
My lungs and larynx too;
And so I sit at home at night
And teach my children what is right
And wise for them to do;
And when I'm on the job by day
I do my best to earn my pay.

Though arguments may rage and roar
I grease the hinges on my door
And paint the porches blue;
I love this splendid land of ours
And so I plant the seeds and flowers
And watch them bursting through;
I never stand upon a box
To say we're headed for the rocks.

My notion of a patriot
Is one who guards his little cot
And keeps it up to date;
He pays his taxes when they're due
And pays his bills for groceries too,
And dresses well his mate;
He keeps his children warmly clad
And lets them know they have a dad.

The Nation's safe as long as men
Get to their work and back again
Each day with cheerful smile;
So long as there are fathers who
Rejoice in what they have to do
And find their homes worth while
The Stars and Stripes will wave on high
And liberty will never die.

—EDGAR A. GUEST.

Coal Prices

As this issue of the MONTHLY goes to press reports are reaching us from gas companies of quotations on gas coal which they have received. In several cases the prices reported are unwarranted by any condition or circumstance, or else our judgment is altogether wrong.

A recent news dispatch sent out from Washington gives rise to the hope that profiteering in coal will not be tolerated, for it states that "approximately 5000 special agents, district attorneys and other officials throughout the country, working under personal direction of Attorney General Palmer, are collecting evi-

(Continued on page 326)

TECHNICAL SECTION

L. R. DUTTON, Chairman

H. W. HARTMAN, Secretary

W. S. BLAUVELT, Vice-Chairman

MANAGING COMMITTEE — 1920

At Large

BLAUVELT, W. S., Terre Haute, Ind.
 CASTOR, W. A., Philadelphia, Pa.
 CHUBB, C. N., Davenport, Iowa.
 COLLINS, D. J., (Mfr.) Philadelphia, Pa.
 CONGDON, R. C., Atlanta, Ga.
 DUTTON, L. R., Jenkintown, Pa.
 EARNSHAW, E. H., Newark, N. J.
 FIELDNER, A. C., Pittsburgh, Pa.
 FORSTALL, WALTON, Philadelphia, Pa.
 FULWEILER, W. H., Philadelphia, Pa.
 HAFTENKAMP, J. P., Rochester, N. Y.
 HAZELTINE, L. A., New York, N. Y.
 HARPER, R. B., Chicago, Ill.
 MACARTHUR, DONALD, Jersey City, N. J.
 MACBETH, A. B., Los Angeles, Cal.
 MACBETH, G. T., Mt. Vernon, N. Y.
 NORMAN, O. E., Chicago, Ill.
 NORTON, H. A., (Mfr.) Boston, Mass.
 OLIPHANT, E. C., Buffalo, N. Y.
 PHILLIPS, A. I., Washington, D. C.
 STONE, C. H., Rochester, N. Y.
 UHLIG, E. C., Brooklyn, N. Y.
 WEBER, F. C., New York, N. Y.
 WILLIEN, L. J., Boston, Mass.

Representing Affiliated Societies

BROWN, J. A., Jackson, Mich. (Michigan)
 CHAPIN, C. H. B., New York, N. Y. (Empire State
 G. & E.)
 CHUBB, C. N., Davenport, Ia. (Iowa)
 CORNISH, R. C., Philadelphia, Pa. (Pennsylvania)
 GREY, J. C., Fort Wayne, Ind. (Indiana)
 HART, J. G., Waukegan, Ill. (Illinois)
 HUMPHREYS, J. J., Montreal, Canada. (Canada)
 JONES, E. C., San Francisco, Cal. (Pacific Coast)
 JONES, JACOB B., Bridgeton, N. J. (New Jersey)
 LYONS, E. F., Beloit, Wisc. (Wisconsin)
 PAIGE, C. E., Worcester, Mass. (N. E. Gas. Eng.)
 SEDBERRY, W. H., Marshall, Tex. (South Central)

CHAIRMEN OF SECTION COMMITTEES ORGANIZED TO DATE

Carbonization—J. P. HAFTENKAMP, Rochester, N. Y.
Cast Iron Pipe Standards—WALTON FORSTALL, Philadelphia, Pa.
Chemical—E. C. UHLIG, Brooklyn, N. Y.
 Vice-Chairman, R. B. HARPER, Chicago, Ill.
Deposits in Meters, Services, etc. (Sub)—O. A. MOR-
 HOUS, Astoria, N. Y.
Purification—C. H. STONE, Rochester, N. Y.
Consumers Meters—W. A. CASTOR, Philadelphia, Pa.
 Vice-Chairman, GEO. WHEELER, Denver, Colo.
Re-Design of Distribution Systems—F. C. WEBER, New
 York, N. Y.

Disposal of Waste from Gas Plants—L. J. WILLIEN
 Boston, Mass.
Electrolysis—L. A. HAZELTINE, New York, N. Y.
 Vice-Chairman, ROBT. C. NEWBURY, Denver,
 Colo.
Gas Works Auxiliaries—C. N. CHUBB, Davenport, Ia.
 Vice-Chairman, R. A. CARTER, Jr., New York, N. Y.
Nomenclature—O. E. NORMAN, Chicago Ill.
Refractory Materials—W. H. FULWEILER, Philadelphia,
 Pa.

Mid-West Conference

THE Mid-West Conference of the Technical Section, Hotel La Salle, Chicago, March 19, brought together an attendance which could well be considered nationally representative of the technical talent of our industry. Sixty-five members of the Section's Committees supplemented by members attending the Illinois Gas Association Convention gathered from as far south as Atlanta, Ga., to Montreal, Canada, and from the Eastern Seaboard to Colorado and points between. Representatives of the U. S. Bureau of Standards, Bureau of

Mines, Illinois Geological Survey, seven Affiliated Gas Associations and members of the faculty of two technical Universities were among those present.

Holding the conference on the day following the Illinois Gas Association Convention enabled many of the members of the Section to attend the sessions of that Association without conflicting with their own Committee meetings.

Meetings of the Managing and other Technical Committees were held in the morning. The meeting of the Managing Committee was chiefly devoted to plan-

ning the Technical Sessions at the Convention with special reference to the material developed to date, number and subjects of papers, etc.

A chart was exhibited by the Chairman showing the time available at the Convention, two-thirds of which it was estimated would be taken up by the presentation and discussion of committee reports planned to date.

The meeting approved a suggestion to print Committee reports in the A. G. A. MONTHLY as completed, to be later presented in abstract form at the Convention. It was also decided to appoint only one representative of the Section on the General Program Committee of the Association, this representative to have the advice and all suggestions for papers received through the Managing Committee.

The Chairman was authorized to appoint a Committee to submit nominations for Chairman and Vice-Chairman of the Section, this Committee to report not less than 60 days before the Annual meeting.

Gas Oil Situation

The afternoon session of the Conference, after presentation of the formal reports of Committee Chairmen was devoted to a general discussion of technical problems confronting the industry. Due to its vital importance this session largely resolved itself into a discussion of the gas oil situation. Gas men from all parts of the country testified to the impossibility of renewing oil contracts expiring recently and in many cases the failure of deliveries on existing contracts. In the few cases where it had been possible to negotiate contracts large increases in prices and very low grade oil were recorded.

Several members reported that on existing contracts the deliveries were falling below specifications, one company stat-

ing they had been compelled to operate on practically fuel oil for the past six months. Operating difficulties with low gravity and high coke residue oil were outlined. The discussion clearly indicated the shortage to be a general one and that the industry was facing a crisis requiring quick and effective measures for relief. The Secretary-Manager outlined the activities of the Committee of the Executive Board on Gas Oil which is making every effort to secure relief from the Existing Situation. Such constructive measures as can be determined upon will be taken in the interest of the whole industry.

Helping the Small Gas Company

Chairman Dutton then introduced Mr. A. I. Phillips of the Bureau of Standards who addressed the meeting on his experiences with smaller gas companies when called in to adjust questions between such companies and municipal and state authorities.

Mr. Phillips gave a very interesting description citing several instances of deplorable service conditions and the means taken to remedy them. The worst conditions, Mr. Phillips stated, were found in small independent gas companies or those which had come under the control of electric interests who honestly believed the small gas situations could not be made to pay.

The importance of getting into touch with Association affairs the small independent and electrically controlled gas companies whose poor service is harming the whole industry was emphasized. The problems for the most part were not highly technical but were matters of common sense. Those in charge of such plants were anxious to obtain information and generally able to assimilate it, but they did not know where to apply.

Mr. Phillips stated that, in his opinion, the first step in the problem of assisting

these smaller companies was to make them realize that the National Association is for them as much as the larger fellow and is prepared to help them solve their problems.

The discussion brought out that the State and District Gas Associations were making consistent efforts to secure the memberships of smaller gas companies and through special committees and bureaus of information to help these companies in their work.

The Conference unanimously adopted a motion that it was the sense of the meeting that the publication of a second edition of the Catechism of Central Station Gas Engineering in the United States would be of assistance to smaller companies and junior members of larger organizations.

It was also recommended that permission be secured, if possible, to print data obtained by the U. S. Fuel Administration relating to conservation of fuels in small plants.

Disposal of Waste from Gas Plants Committee

The Chairman reported that at the direction of the Executive Board a complete report will be submitted at the Convention setting forth all data compiled by the Committee since its inception.

The principal problem before the Committee is the elimination of phenols. Chlorination of city water supply has accentuated this problem and the co-operation of several universities will be solicited in determining the compounds formed in chlorination, whether phenols are formed in sewage, the effect of the elimination of air due to freezing, whether waste can be treated by bacterial action, etc.

Advantage will be taken of the fact that one company is sending a representative abroad to obtain full information as to foreign methods of waste disposal.

Investigations of waste disposal conditions by several states were reported at the meeting and in one case the enactment of legislation empowering local boards of health to shut down a plant if it deems it advisable, the only recourse to the company being legal proceedings in the form of an injunction.

A special report on a method of separating tar and oil from waste which is especially good for emulsions will be submitted by one member of the Committee and encouraging progress was reported in the Committee's investigation into the use of the tar camera for testing the effluent from tar separators.

Electrolysis Committee

The main feature of the Committee's report will be the preparation of a pamphlet giving methods of making electrolysis tests.

For this work one member has agreed to prepare a discussion of the physical examination of pipes and another a brief discussion on some of the chemical aspects. Material will be drawn from the 1907 report of Prof. Ganz and the data collected by the American Committee on Electrolysis. As most of this work will be done in the summer the Committee's report will not be ready for approval before September.

A considerable part of the meeting was devoted to discussing the work of the American Committee on Electrolysis who have requested the co-operation of the Association Committee on hazards due to fires and explosions attributed to electrolysis.

Carbonization Committee

The Chairman reported two meetings of the Committee held in connection with the Conference, one on March 16 and another March 18 at which there was a very good attendance of the western members.

The work has been planned as follows:

1. *Progress in Carbonization Methods and Results.*

Due to financial conditions new installations will not be covered but a report will be made on general manufacturing results of horizontal, and vertical inclines and ovens, to conform to carbonization data sheet approved by the A. G. I. in 1912. Information on plants will be grouped:

- (a) Up to 300,000 capacity per day.
- (b) 300,000 to 3,000,000 " "
- (c) 3,000,000 and over

A general review of the low temperature carbonization process will be included.

2. *Producers as Applied to Carbonizing Units or the Gas Industry.*

Complete descriptions, pictures and operating data will be obtained on all detached producer plants of volatile and non-volatile fuel type insofar as they apply to carbonizing units.

3. *Coke.*

Sufficient information from large industrial users will be obtained to determine whether suitable specifications could be written for the industry.

For the above work each member of the committee has been designated a definite task in groups of three or four

with a head for each group as the collecting medium.

Committee on Nomenclature

As this Committee was appointed just prior to the Conference no meeting was held. Mr. O. E. Norman, Chairman, has already appointed several members of the Committee and it is understood that the Committee will proceed with the work where the former Committee of the A. G. I. left off and submit as complete a report this year as possible.

Meetings of other Committees at the Conference will be reported in the June issue of the MONTHLY.

(Continued from page 322)

dence against coal profiteers. Mr. Palmer has not yet received reports from district attorneys to whom he sent a telegram instructing them to hunt down coal dealers who might seek to take advantage of the 27% wage increase awarded to miners to increase prices unjustly. Mr. Palmer in his telegram said that the average increase in prices at the mines should not be more than forty cents per ton."

A Correction

In the article "The Determination of Phenols in Ammonia Still Waste" by H. J. Rose and F. W. Sperr, Jr., published in the A. G. A. MONTHLY, issue of February 1920, the seventh line from the bottom of the first column of page 119 should read "Weigh out rapidly exactly one gram of dry ———", etc.

Also about the middle of the next column (lines 23 to 25 from the top) the phrase "when the solution to be tested, dilute a known face", should be entirely omitted.

H. J. ROSE, *The Koppers Company.*

RECENT ARTICLES IN CHEMICAL PRESS OF INTEREST
TO GAS MEN

Contributed by Sub-Committee on Abstracts* of the Chemical Committee

- MUSTARD GAS.** By Sir Wm. J. Pope, *Journal of the Society of Chemical Industry*, Vol. 38, No. 18, 344R (September 30, 1919). A discussion of investigations, laboratory work, etc., involved in the development of "mustard gas." (R. B. Harper.)
- THE THERMAL CONDUCTIVITIES OF INSULATORS IN RELATION TO THE LAGGING OF STEAM PIPES.** By R. Thomas, *Journal of the Society of Chemical Industry*, Vol. 38, No. 19, 357T (October 15, 1919). A consideration of the loss of heat from various lagging materials accompanied by curves and tables illustrating the heat losses. (R. B. Harper.)
- IMPROVED APPARATUS FOR THE ESTIMATION OF VAPOR PRESSURES.** By Allan Morton, *Journal of the Society of Chemical Industry*, Vol. 38, No. 19, 363T (October 15, 1919). A description of an apparatus and the method of manipulating it for the estimation of vapor pressures. (R. B. Harper.)
- A METHOD FOR THE ANALYSIS OF NITROUS GASES AND ITS APPLICATION TO THE STUDY OF LOWERS FOR THE ABSORPTION OF SUCH GASES.** By A. Geake and F. J. Squire, *Journal of the Society of Chemical Industry*, Vol. 38, No. 20, 367T (October 31, 1919). A description of a method of analysis of a mixture of gases consisting of nitric oxide and peroxide, carbon monoxide and dioxide, oxygen and nitrogen and determine weights of these passing through a system in a given time. (R. B. Harper.)
- RECOVERY OF PYRIDINE FROM BY-PRODUCT COKE OVENS.** By F. E. Dodge and F. H. Rhodes, *Chemical and Met. Eng.*, Vol. 22, No. 6, 274-5 (Feb. 11, 1920). A description of a semi-experimental plant for recovery of pyridine at the Toledo Furnace Co.—A Koppers by-product coke plant. Ammonia vapor is passed through the "saturator liquor" in a lead lined still, until the solution is strongly alkaline. The mixture boils because of the heat of reaction, and the vapors are condensed, yielding a crude pyridine. (David L. Jacobson.)
- TESTING NATURAL GAS FOR CARBON BLACK.** By R. O. Neal, *Chemical and Met. Eng.*, Vol. 22, No. 8, 358-9 (Feb. 25, 1920). A description of a portable apparatus for making practical small scale tests on natural gas to determine the amount of carbon black that could be produced in commercial plants. (David L. Jacobson.)
- THE CAKING OF SULPHATE OF AMMONIA.** By C. G. Atwater and J. F. W. Schulze, *Chemical and Met. Eng.*, Vol. 22, No. 8, 373-4 (Feb. 25, 1920). Laboratory tests show that the tendency of sulphate of ammonia to cake is due to presence of pyridine sulphate. (David L. Jacobson.)
- PREVENTING ACCIDENTS IN GAS PLANTS.** By J. F. Conner, *Chemical and Met. Eng.*, Vol. 22, No. 9, 421 (March 3, 1920). Suggestions on prevention of gas and dust explosions, use of respirators, educational propaganda, etc. (David L. Jacobson.)
- A TEST ON SULPHUR CONTENT OF CLEAN, COLD PRODUCER GAS.** By Carl F. Kaufman, *Chemical and Met. Eng.*, Vol. 22, No. 12, 544 (March 24, 1920). Results of a 24-hour test to determine the distribution of the sulphur in the various parts of a producer gas system making clean, cold gas. The final gas contained 14.31 grains of sulphur per 100 cu. ft. Most of the sulphur is removed in the primary and secondary condenser water. (David L. Jacobson.)
- LABELLE COKE PLANT.** By G. P. Blackiston, *Chemical and Met. Eng.*, Vol. 22, No. 12, 561-3 (March 24, 1920). A description of the new ninety-four oven Koppers plant of the Labelle Iron Works at Steubenville, Ohio, replacing the former beehive ovens. The new plant has two batteries, each of 47 standard Koppers 12½ ton ovens, and is planned to permit duplication of the present equipment. A full discussion of the coal handling arrangement, by-products plant, pumping equipment, etc., is included. (David L. Jacobson.)

* Abstractors' names appear in brackets following each item.

AMERICAN GAS ASSOCIATION, Inc.

List No. 33—May, 1920

Rate Increases Secured.

Where information is not secured from company receiving increase, the source of information is noted in brackets. See Cumulative List of December, 1919, for explanation of abbreviations. This list includes only increases reported as secured subsequent to December, 1919.

ILLINOIS

Freeport: Gas Company reports second increase effective Dec. 1, 1919. New rate: 1st 5 MCF \$1.35—next 5 MCF \$1.30—next 15 MCF \$1.25—next 25 MCF \$1.20—next 50 MCF \$1.15—next 100 MCF \$1.10—over 200 MCF \$1.05 per M, disc. 10¢ per M. Prepay meters \$1.35 per M. M. M. Chge. 50¢ per meter.

Jan. 3, 1920, Company ordered by P. S. C. to change from city requirement of 600 B.t.u. to 565 B.t.u. one mile from plant.

INDIANA

Auburn: Indiana Fuel & Light Co. reports second increase effective Nov. 1, 1920. New rate: 1st 10 MCF \$1.60—next 10 MCF \$1.50—next 10 MCF \$1.40, disc. 10¢ per M—next 10 MCF \$1.30, disc. 5¢ per M. All over 40 MCF \$1.25 per M. net. Supplies also Garrett and Kendallville.

Huntington: Light & Fuel Co. reports increase effective Dec. 1, 1919. Old rate: \$1.00 per MCF. New rate: 1st 5 MCF \$1.25—next 5 MCF \$1.00—all over 10 MCF 80¢ per MCF. M. M. Chge. 50¢ per month.

IOWA

Hampton: Gas Co. reports increase effective May 1, 1919. Old rate \$1.60 gross, \$1.50 net, per MCF. New rate \$1.85 gross, \$1.75 net, per MCF.

MASSACHUSETTS

East Boston: Gas Co. reports third increase effective Dec. 1, 1919. New rate \$1.05 per MCF net. Further increase applied for.

Fall River: Fall River Gas Works reports second increase, effective June 12, 1919. New rate \$1.10 gross per MCF \$1.05 net. Over 2500 c. f. 95¢ per MCF net. Supplies also Somerset per MCF \$1.30 gross, \$1.25 net.

Nantucket: Citizens Gas, Electric and Power Co. reports increase effective Sept. 1, 1919. Old rate \$2.20 gross, \$2.00 net per MCF. New rate \$2.50 gross, \$2.30 net per MCF.

Newton: Newton & Watertown Gas Light Co., reports third increase effective Dec. 1, 1919. New rate \$1.05 net per MCF.

MICHIGAN

Ann Arbor: Washtenaw Gas Co. reports second increase effective Feb. 1, 1920. New rate: 1st 5 MCF \$1.15 per M net. All over 5 MCF 87½¢ per M, net.

Hillsdale: Gas Light Co. reports increase effective Oct. 5, 1919. New rate: For Illuminating \$1.85 per MCF. For Fuel \$1.60 per MCF. For both through one meter \$1.72½ per MCF, disc. 10¢ per M on all above 200 c. f. Rate fixed by U. S. District Court during bankruptcy.

Holland: Holland Gas Works reports third increase effective Dec., 1919. New rate: \$1.55 per MCF gross, \$1.45 net. Company in hands of Receiver.

Ypsilanti: Municipal Gas Dept. Increase reported effective July 19, 1919. Old rate: 1st 5 MCF \$1.10 per M—next 5 MCF \$1.00—all over 10 MCF 80¢ with 25% added after 15th of month. New rate: 1st 5 MCF \$1.40 per M—next 5 MCF \$1.30—next 50 MCF \$1.10—all over 50 MCF 90¢; disc. 10¢ per M, 10 days. M. M. Chge. 50¢.

NEBRASKA

Nebraska City: City Gas Company reports increase effective June 20, 1918. Old rate \$1.50 per MCF, disc. 10% 10 days. New rate: 1st 2 MCF \$1.85 per M—next 2 MCF \$1.60—next 5 MCF \$1.40; all over 10 MCF \$1.10 per M, disc. 10¢ per M, 10 days. M. M. Chge. 75¢ per month per meter. Further increase asked for.

NEW JERSEY

Atlantic Highlands: Standard Gas Co. reports second increase effective Jan. 1, 1920. New rate: 1st 5 MCF \$1.65 per M,—next 5 MCF \$1.55—next 20 MCF \$1.40—next 20 MCF \$1.30—next 25 MCF \$1.20—next 25 MCF \$1.15—over 100 MCF \$1.10 per M, disc. 5¢ per M, prompt pay. R. S. Chge. \$3.00 per year.

Toms River: Ocean County Gas Co. reports third increase effective Nov. 14, 1919. New rate 1.70 gross, \$1.65 net per MCF. S. Chge. \$3.00 per year. Price sold to other corporations increase from \$1.28 to \$1.45 per MCF.

NEW YORK

Ossining: Northern Westchester Lighting Co. reports increase effective Jan. 15, 1920. Old rate fuel and light \$1.50 per MCF. New rate fuel and light \$1.65 per MCF. Power \$1.50 per MCF. Old power rate up to 100 MCF \$1.25 per M—next 25 MCF \$1.20—next 25 MCF \$1.15—next 25 MCF \$1.10—next 25 MCF \$1.05. Over 200 MCF \$1.00 per M.

Owego: Gas Light Co. reports second increase effective Feb. 1, 1920. New rate 1.50 per MCF net. 10¢ added if not paid 10 days. Consumers chge. of 50¢ per month remaining the same.

OHIO

Akron: East Ohio Gas Co. (Natural) reports second increase effective Jan. 10, 1920. New rate: 1st 5 MCF 48¢ per MCF—next 5 MCF 53¢—next 5 MCF 58¢; all over 15 MCF 63¢ per M.

Alliance: Alliance Gas & Power Co. (Natural) reports second increase effective Nov. 1, 1919. New rate: 55¢ per M, net. R. T. S. Chge. 35¢ per month.

Lima: Lima Natural Gas Co. reports second increase effective July, 1919. Nov. to April both incl.: 1st 25 MCF 50¢ per MCF—next 5 MCF 60¢; over 30 MCF 70¢ per M. May to Oct., incl., 50¢ per MCF. Industrial 1st 10 MCF 50¢ per M. Over 10 MCF 40¢ per MCF.

Oberlin: Gas & Electric Co. reports third increase effective Oct. 12, 1919. New rate 88¢ per MCF, disc. 3¢ per M. M. M. Chg. 85¢ per month.

Toledo: Northwestern Ohio Natural Gas Co. reports second increase effective Dec. 18, 1919. New rate: 1st 5 MCF 37¢ per M—next 5 MCF 42¢—next 5 MCF 47¢—next 5 MCF 52¢—over 20 MCF 57¢ per M; disc. 2¢ per M. R. T. S. Chge. 65¢ per month.

PENNSYLVANIA

Phoenixville: Philadelphia Suburban G. & E. Co. reports increase effective Oct. 15, 1919. Old rate: 1st 5 MCF \$1.45 gross, \$1.35 net, with sliding scale. New rate: 1st 5 MCF \$1.85 gross, \$1.75 net, with sliding scale.

RHODE ISLAND

Pawtucket: Gas Co. reports increase effective July 21, 1919. New rate \$1.40 per MCF gross, \$1.30; all over 41,700 c. f. \$1.15 gross, \$1.05 net per M.

Employment Bureau

SERVICES REQUIRED

WATER GAS—Experienced water gas maker wanted. Gas Works vicinity of New York. Address—American Gas Association, 130 East Fifteenth Street, New York, N. Y.

Key No. 4

METER REPAIRER—One who is experienced in meter work. Works in large city in New York. Address reply to A. G. A.

Key No. 5

WANTED—Thoroughly experienced gas appliance salesman. State age, reference and salary expected. Address—American Gas Association.

Key No. 7

SERVICES OFFERED

WANTED—Position as manager in city of 60,000 or over by college graduate of 16 years connection with gas business. A successful record as manager of 2 gas companies, and as superintendent of one of the largest gas plants in U. S. Has had practical experience in every branch of the business and has made good. Address American Gas Association.

Key No. 102

WANTED—Position as gas engineer or manager by a man of large experience in both capacities in manufacture and distribution of coal or water gas. 38 years of age with excellent references. Address—American Gas Association, 130 East 15th Street.

Key No. 103

WANTED—Young man desires a position with opportunities. Present location 5 years and cannot go higher. Thoroughly trained and experienced in water gas operation. New business and management. Address—American Gas Association.

Key No. 104

WANTED—Position as superintendent of a company of moderate size, age 29. Technical graduate—experience—assistant superintendent of large coal and water gas plant. Distribution and industrial appliance work. Address American Gas Association.

Key No. 105

WANTED—Young man 32, experienced manager and office manager desires position with a combination company. Salary \$250.00 per month. Address—American Gas Association.

Key No. 106

WANTED—Position as general manager of a large company or of several companies where organization and management is necessary. Have had an extensive experience in the business in all its branches as an organizer, builder and manager. Have had excellent results in dealing with the public and in popularizing the companies under my direction. Address—American Gas Association.

Key No. 107

WANTED—Position as superintendent wanted by technical man, married, 30 years of age, experienced in manufacture of water gas and high and low pressure distribution. Can furnish best of references. Address—American Gas Association, 130 East Fifteenth St., New York, N. Y.

Key No. 108

WANTED—Position as Manager or Assistant in medium size town. Has had 15 years experience in coal and water gas and electric operation. Technical graduate. Any location. Address—American Gas Association.

Key No. 109

WANTED—Position as Industrial Power and Fuel Engineer. Technical engineer and salesman of excellent qualifications for industrial power and fuel sales. Now employed \$3000. Address—A. G. A.

Key No. 111

QUESTION BOX

THE questions and answers on accounting subjects in the Question Box have been contributed by the Accounting Section Committee on State Representatives, Mr. J. W. Heins, Chairman, who will be glad to receive inquiries from any of our members on their accounting problems.

Questions and answers under "General Problems" are the result of inquiries received at Association headquarters and answered through the committees of the various Sections or from the Association files.

Answers from our members are solicited on questions which come within their experience and such answers should refer to code number of Question, A-1, G-1, etc.

—Editor.

ACCOUNTING PROBLEMS

A-5 About two years ago we eliminated the practice of giving our workmen typewritten work orders to cover installation of appliances and parts sold by our New Business Department as this involved the salesman's writing orders in lead pencil and later duplication of the work order by a typist.

Under the new system, however, many of the penciled work orders received by the shop have proven illegible.

What has been the experience of member companies as to penciled vs. typed sales and work orders?

ANSWERS.

Mr. Burton Smart, State Representative, Maine

In our order system there are four copies written on our Elliott-Fisher machine with carbon at one time. The clerk taking the order hands it to the operator who makes as much of the entry as is possible with her knowledge of what is to be done,—in general the name and street number, the salesman's initials, the account to be credited, the terms and the time wanted, the date of taking the order, the appliance sold, and order to connect are all that would be written in the first instance. The bill itself is retained by the clerk writing the order. The workman's yellow copy is sent to the foreman of the Jobbing Department to be done. The blue copy goes to the Stock Room for the entry of the stock delivered on it and the brown copy is returned to the order clerk to remain in a file as a follow-up copy, to be lifted when the workman's yellow copy is returned. From the yellow copy is taken such statistics as we deem necessary as to stock used and time.

This order is then priced and approved by the Manager of the Sales Department and then returned to the Elliott-Fisher operator who completes the white bill making with one impression the total of the charge appear upon the bill and the charge and distribution sheet, and is distributed to the account to which it should go.

The bill is then sent to the consumer; the workman's yellow copy goes to the sundry bookkeeper who enters it upon the consumer's ledger card which with the Elliott-Fisher machine leaves a carbon copy on the consumer's ledger proof sheet. At the end of the month the total of the new charges pass on to a Revenue Book in which is kept a record of charges, allowances for discount, the cash taken from the cashier's counter sheet, and from this book is transferred to the corporation ledger.

We have been able to get results with this system that we were never able to obtain previous to its installation as it is now possible to keep accurate balances and to give to each consumer the amount of his entire indebtedness to the company at the same time that we hand him his gas account.

Mr. H. M. Eaton, State Representative, Michigan

We consider it more advisable and desirable that all orders for installation of appliances, etc., be turned in to the order department by the New Business Department and that the order clerk make up the workman's work orders for the installation of such sales. A clerk that writes a fairly good hand should be able to make the work order legible enough for the workman's use and hence save the time of putting the order through the typewriter.

Mr. Harry T. Hughes, State Representative, Colorado

It was the practice of the Denver Gas and Electric Light Company at one time to give our workmen typewritten work orders to cover the installation of appliances. This method proved satisfactory in this particular respect but some few years ago we effected a radical change in our entire accounting system and under this latter and present system our sales people when taking orders for the installation of appliances use a special form which is turned over to the appliance department where a lady employé copies the information, with lead pencil, from the special form onto what is termed a customer's order form. Description of this form is as follows: Contained in bound book, made in triplicate, numbered consecutively, the original and duplicate being perforated so that they can be easily removed from the triplicate which remains in the book.

We have found the lead pencil method very satisfactory. We, however, attribute this satisfaction to the fact that one person copies all the shop orders and is attentive in the matter of using fresh carbon paper. Since four orders can be written consecutively before it becomes necessary to shift the carbon paper, we find that we can give just as quick service as the typewritten method, which necessitates the shifting of carbon paper at the writing of each new order. We also secure the additional advantage of having the triplicate copies in bound book form running in chronological as well as numerical order.

Mr. J. A. McArthur, State Representative, Connecticut

In our New Business Department orders given to workmen are made in pencil and with a carbon copy kept in the office. They are in book form and the original is given to the workman. We have experienced no trouble as suggested.

Mr. E. Haase, State Representative, Wisconsin

We have for the last twenty years been using work orders of all kinds, meter sets, shut-offs, transfers, poor service complaints, appliance installations, in fact all our orders are written on the typewriter in triplicate; original consisting of original work order, the duplicate or office copy, and triplicate or shop copy; in some cases a quadruplicate, consisting of the inspector's copy.

Of course we would think of no other system, because for dispatch, accuracy and economy of operation no other system is thinkable to us.

Mr. Geo. R. Horning, State Representative, Utah.

We have found the following system to be practicable and satisfactory: The order for any work of the kind is signed by the consumer and does not go in the shop at all, but is held in our files for billing until the work is completed. Immediately this is received a charge ticket and a storeroom order for material necessary are written in pencil and sent to the shop. The workman copies his record of time and material used on the charge order and this is returned to the order department to be matched up and passed through for billing. We have had no trouble because of these forms being illegible, and this system has the advantage of getting the orders for work to the shop immediately so that these can be placed in line in our work schedule. Usually the clerk taking the order can prepare these tickets immediately so that no time is lost. All other orders for work to be done by consumers, such as inspections, meter changes, etc., are also written in pencil and this is found to be entirely satisfactory and much quicker

than to have them typed. Our construction job orders, however, are typewritten, but these are very few in comparison with appliance installation orders and work of the kind and the time that would be lost or saved by either method is negligible.

Mr. Hilmar Papst, State Representative, Oregon

The Portland Gas and Coke Company has tried both methods of making up work orders, namely, written with pencil by salesmen and order clerks and typewritten. All of our orders are printed in quadruplicate, the first copy being the contract and office tracer; the second copy, the workmen's order; the third copy, the shop tracer; and the fourth copy, customer's copy of agreement.

With the typewriting method, salesmen or order clerks make out the contracts in duplicate, the duplicates being given to the customers, the work orders being typed in duplicate from the original contract. We found this to be a much more expensive plan, requiring the service of typists, and we found many errors and omissions were made in transcribing.

Under the method first mentioned, all work orders are formed at no expense, being made out simultaneously with the writing of the contracts. We use the best carbon paper obtainable and paper of the proper thickness, and the difficulty caused by illegible orders has been less than the errors and omissions under the typing plan, to say nothing of the saving obtained.

Mr. H. C. Estberg, State Representative, Oklahoma

In all companies with which the writer has been connected sales orders and work orders were made out in pencil and no difficulty has been experienced. The following suggestions are offered:

- 1—Instruct those who make out the orders to write plainly and in full; there is no excuse for doing otherwise.
- 2—Experiment with pencils of various degrees of hardness until the grade is discovered that will give the best results for permanence and legibility.
- 3—Provide the men with folders in which to carry the orders and keep them clean, such as the ordinary spring back binder. One can be obtained which will fit the pocket, the order being folded when inserting the binder.

Mr. J. E. McLeod, State Representative, Missouri

All orders for work to be done for customer, except setting and removing meters, are rewritten on typewriter and experience has shown that this method is much more satisfactory and probably saves time over the system formerly used of passing original orders, written in pencil, to have work done.

Mr. C. S. Morse, State Representative, Virginia

It is unquestionably true that written orders often become more or less illegible from handling and difficult for the fitters and complaint men to decipher. This can be partly remedied by

1. Supply the outside salesmen with pencils with hard lead.
2. Require all orders taken in the office written with pen and ink.

From the fitters' standpoint, typewritten orders would, of course be preferable, as they are much more easily read. To do this, however, would require considerable extra work in the office and also duplication of effort. If the typist takes all orders, it would limit the orders coming in to the speed of this one person, and sometimes, customers may be kept waiting unduly long.

The solution of this problem depends very largely upon each individual company. If the company has a clerical force sufficient to easily take care of this matter, and the fitting department is rushed with work, it would certainly seem desirable to furnish them with typewritten orders to save their time as much as possible. If to typewrite orders would require the employment of an extra person, it would be a question whether or not the time saved to the Distribution Department would offset the increased expense.

Mr. W. Townley, Montreal Light, Heat & Power Consd., Montreal, Canada

Our system of handling work orders is as follows:

1. Application made to Accounting Department for work order covering specific classes of work, such as complaints, meter installation, stove installation, water heater installation, etc.
2. Time and material charged to respective work order for month. This enables us to determine and compare unit costs monthly.
3. Sales orders (typewritten) are issued for prepaid sales of appliances or to persons of undoubted credit.
4. An operating order (typewritten) is issued for sales of appliances sold on the installment plan.
5. Time and material used in installing appliances on No. 3 and No. 4 are charged to work orders.
6. Another class of sales order covers installation of piping, repairs to appliances, etc., materials and labor are charged direct to sales order.

All orders are typewritten and issued in duplicate.

A-6

In the Report of the N. C. G. A. Committee on Relations with Customers, the following instructions are given on pages 96 and 97:

Balance on Consumers' Ledgers: It is assumed (theoretically) that all ledgers are in balance, but in order to determine the correctness of this, the bookkeeper must properly assemble the necessary items covering the debits and credits namely:

DEBITS:

Outstanding	(1st of month)
Sales	(During month)
Alterations	(Correction of sales)
Transfers	(From other ledgers)
Refunds	(Moneys received from customers in excess of amount debited to their account)
Overpayments	
Other miscellaneous debits	

CREDITS:

Cash Receipts	
Uncollectible Bills	
Deposits and Interest Applied	
Transfers to Other Ledgers	
Overpayments Applied	(Overpayment not claimed by customers and applied to their accounts)
Return to stock	(This credit covers allowance made to customers on appliances returned to company)
Journal Entry	(Correcting Entry)
Other Miscellaneous Credits	
Outstanding End of Month	

We are experiencing considerable trouble in getting this information assembled in time to get out our monthly balances and reports. Only by checking and rechecking at the end of the month can we get this information and we believe there must be a method in use that permits this to be made up daily so that at the end of the month the report becomes merely a matter of adding up totals.

ANSWERS.

Mr. Hilmar Papst, State Representative, Oregon

The system used by the Portland Gas and Coke Company enables us to assemble the information daily, it simply being necessary at the end of the month to total the control sheet (a matter of only a few minutes) and turn them over to the general ledger bookkeeper to journalize and enter in the general ledger.

The following forms are used in carrying this out:

No. 270—Recapitulation of Cash Credits.

474 " " Sales Debits.

210 " " Debit and Credit Memorandums.

460—Control or Balance on Accounts Receivable Gas.

The sales billed or debited in the gas ledgers each day are totaled from the ledger by the use of "markers." Such totals are carried to the sheet for the recapitulation of debits.

The cash credits posted in the ledgers are likewise totaled by the use of "markers" and carried to the sheet for the recapitulation of credits.

All debit and credit memorandums entered in the ledger each day are totaled and carried to the sheet for the recapitulation of memorandums. Alterations, transfers, refunds, over-payments, uncollectible bills charged off, deposits and interest applied, over-payments applied, etc., are all entered by means of the debit and credit memorandums.

The three recapitulation sheets are then posted to the control or recapitulation of accounts receivable gas, entry being made in the proper columns and the daily balances brought down. Individual control sheets are carried for each ledger and one for the total.

It will be noted that at the end of the month all that is required is to total the columns on the control sheets and the recapitulation of debit and credit memorandums.

During the month following "balance clerks" take off the total of the outstanding amounts in each ledger and compare such amounts with the balances shown on the individual control sheets. In the event any of them do not agree, the debit and credit entries in a ledger can be easily checked with the adding machine tapes from which the daily recapitulation sheets have been made up, and the error or discrepancy found and corrected.

Mr. Geo. R. Horning, State Representative, Utah

The ideal method is to have the accounts of consumers in such shape at the first of the month or at any other period at which a balance is desired, so that merely by drawing off the outstanding balances this can be secured. The only thing that would hold back a quick balance at any time would be the tabulation of sales or revenue in proper shape. Where billing machines are used this item, of course, is ready as soon as all billing is done.

Another method that is known to be in use is the listing of all bills before they are sent out on an adding machine split to carry two or more columns of figures. The bills made on the reading taken at the regular period are added as one lot with room reserved to add in before recapitulation at the end of the month, the memoranda or charge slips for various skip, estimated and final bills that are made at other than the regular period. This is usually assembled while the ledger clerks are drawing off their outstanding balances. At present we are taking the revenue direct from the ledgers within a specified time after the accounts have been billed out and before the time for balancing, so that this item is ready. Final bills, etc., rendered after the revenue has been withdrawn are included in the next month's revenue. There should be no difficulty in having the total cash credits recapitulated by ledgers or route books as desired at the end of each month. Each day's posting should be proved and the total proved with the cash receipts for that day. The total cash credits can be taken from the cash book which we keep merely in recapitulated form daily and by ledgers. Cash refunds to consumers for overpayment or duplicate payment, should, of course,

be included for the day as part of the cash posting. With regard to miscellaneous debits and credits such as transfers, allowances, etc., one or more ordinary stock journals of the desired number of columns may be used for daily entry as debits or credits to the various ledgers or other divisions of your consumers' accounts. The transfer slips or credit memoranda are, of course, provided with the necessary authorization and record of entry on this control journal before being passed on to the ledger clerks for entry on the consumers' ledgers.

The balance sheets for the various ledgers or sets of ledgers as soon as secured by the ledger clerks, may be entered on a recapitulation sheet carrying at the left hand side the various subdivisions into which the accounts are divided for balancing and at the top the various titles of debits and credits. From this recapitulation sheet the entries may be then made to the general books. I believe that with almost any method a certain amount of checking will always be necessary although a careful ledger clerk can balance upon the first trial more often than not.

Of course where a billing machine is in use whereby the bill itself, the ledger and the earning sheet are made at one operation most of the checking is avoided, as this machine carries the totals along for each division.

Mr. J. E. McLeod, State Representative, Missouri

The earning statement for the month is made up not later than the tenth of the following month, and it is, of course, impracticable to have all the ledgers in balance at this time, but this is done later on.

The cash receipts are distributed daily as to cash, commercial, and discount; and at the end of the month the Treasurer's Department reports the total to the Auditing Department. These figures agree with the combined balance sheets as rendered by the Customer's Accounts Department.

We do not experience any particular difficulty or delay in getting the Ledger Balances, except in the cases of ledger-keepers new to the work, or to sickness, or some other similar cause.

Mr. C. S. Morse, State Representative, Virginia

There is a system whereby the daily balance on the consumers' ledgers can be carried, and you can obtain information from the Burroughs Adding Machine Company, the Elliott-Fisher Company or the Remington Typewriter Company.

Of course, to use this system, it will most probably be necessary to have special forms printed, but I understand that it is being used by a number of the larger gas companies with very satisfactory results. One of the larger companies in particular that I might mention is the Peoples Gas Light & Coke Co., of Chicago. They can, no doubt, also give you valuable information with reference to this system.

GENERAL PROBLEMS

G-15

We are confronted with the following condensing problem: The gas goes from the water gas sets through a 6' tubular condenser and 100 feet of 12" main to a 50,000 cubic foot relief holder. Coming from the relief holder the gas passes through a 4' tubular condenser, and about 400 feet 10" pipe, four 10' purifiers and a tar extractor to a 200,000 cubic foot storage holder.

All the gas sent out from the plant is distributed by high pressure, varying from 15 to 55 pounds at noon in summer.

Our maximum daily output last year was 800,000 cubic feet and this increases at a rate of 75,000 daily cubic feet each year. The maximum hourly output is 60,000 cubic feet and will average 55,000 cubic feet for a period of about three hours from 10 A. M. to 1 P. M. on Sundays, over a period of six weeks.

We are compelled to operate both 6' sets at one time over several hours per day and one set continuously. Owing to the 10" and 12" yard piping we cannot

operate both sets at their maximum output when running together which means the second set is running more hours per day than it should, placing more work on the condensers.

When running the two sets together the temperature of the gas going into the storage holder is around 125 degrees. The temperature of the suction to the compressor is around 110 degrees and the temperature of the high pressure gas at the outlet of the expansion tank goes as high as 135 degrees sometimes.

In the past we have circulated the water from the storage holder tank through the condensers and compressors. This year we have driven some additional wells which will permit us to pump colder water through the condensers which will help somewhat.

We also intend to build some kind of a condenser for the outgoing high pressure line which will bring the gas somewhat near ground temperature which should drop most of the drip water out at the plant and incidentally should increase the capacity of our outgoing lines.

Our idea is to build a shallow concrete pit about 100 feet long and 10 feet wide. In this pit we would place under water 10 lines of 3" pipe running from a welded header. A drip tank to be placed between the condenser pit and expansion tank.

Can you have some of our members criticize our plan and make any suggestions they deem advisable?

ANSWERS.

Mr. E. H. Earnshaw, Public Service Gas Co., Newark, N. J.

With an output of 800,000 cu. ft. per day, it would seem that the 6' and 4' condensers together should have sufficient capacity. If these condensers are of the usual type, they should have between them at least 4,100 sq. ft. of cooling surface, equal to 5 sq. ft. per thousand per day, the usual allowance being about 4 sq. ft. With the condenser kept clean and efficient and with a sufficient supply of cool water there should be no trouble in cooling the gas to a point where no trouble would be experienced with the compressors or the distribution system.

The use of water from the holder tank particularly if same is of steel and above ground, is certainly not good practice, since, particularly in summer time, the condensers would act as tank heaters and the gas would leave the holder at a high temperature irrespective of the condenser capacity.

Regarding the proposed cooler at the outlet of the compressors, the principle is correct, but owing to the limited size as proposed, he could not expect much relief. The total cooling surface of the 10 runs of 3" pipe plus the headers would be about 800 sq. ft. or 0.55 sq. ft. per thousand per day, based on the maximum rate of sendout. I should say that the most satisfactory results would be secured by providing a sufficient supply of cool water for the present condensers. With cooler gas at the inlet of the compressor the capacity of the compressor would be increased.

Mr. L. J. Willien, Chemical Committee

From the statement made in the second paragraph, the gas passes through the purifiers before passing through the tar extractor. This is fundamentally wrong, as the tar extractor should be located ahead of the purifiers, so as to remove the tar from the gas before purification; otherwise, the purifiers act as a tar extractor, and the purifying material becomes coated with tar, which materially reduces the efficiency of the purifying material.

In the sixth paragraph it states that, at times, the temperature of the gas going into the storage holder is around 125°. This unquestionably is a rather high temperature for the gas at this point.

In the eighth paragraph it states that they intend to build some kind of a condenser for the outgoing high pressure line, in order to bring the temperature of the gas somewhere near ground temperature. It seems to me that, if the additional con-

densing capacity be installed so as to cool the gas down to around 90° at the inlet of the storage holder, it would reduce the need of any condensing equipment for the outgoing high pressure line. The temperature of the gas should be reduced to about 105° at the inlet of the tar extractor.

At plants where we operate gas compressors, we pass the gas through what are known as pulsation tanks, which are simply some steel shells about 18' high and 6 to 8' in diameter equipped with baffles. These tanks, we find, remove a large amount of condensation from the gas. We do not find any condensation in the drips over a mile from the works.

Mr. J. F. Wing, Purification Committee

I would criticise their proposal to obtain relief by installing a concrete pit, holding many lines of pipe under water.

This would be expensive to build and maintain and in my opinion it would be better to install a good sized additional condenser for the hottest gas.

The output from this plant has plainly outgrown the capacity of the present installation for handling the manufactured gas. The advantage derived on installing sufficient condensing capacity would be overtaken, at the rate of 10% a year, very soon.

They would seem to need larger mains, condensers and a larger holder.

It would also seem prudent that they should have one generating set, large enough to supply the usual daily demand.

Mr. J. Van G. Postles, Purification Committee

I believe in cooling the gas as near the generator house as possible for by so doing you increase the capacity of all apparatus and yard connections beyond that point.

I have had no experience with cooling compressed gas but should consider an apparatus, such as described in the letter, consisting of 10 lengths of 3" pipe immersed in a shallow water bath, rather inefficient. In the first place, the pipe from which it would be made is much thicker than an ordinary condenser tube and therefore offers more resistance to the flow of heat from the gas to the water. In the second place, the exposure of this shallow pool of water to the strong sun, which would occur at the time you wanted the most cooling, would cause as much heating of the water as the gas itself. The heat transfer of a straight condenser with thin tubes is about 15 B. t. u.'s per hour, per sq. ft. cooling surface, per degree difference between the water and the gas, and I believe such an apparatus as described above would have little over half this amount of heat transfer.

If a coil of pipe with the gas inlet at the bottom, of sufficient size to pass the maximum output of gas per hour, was placed vertically over a catch basin, and water trickled over the top or gas outlet pipe, the heat transfer might be as high as 25 B. t. u.'s per hour, per sq. ft. cooling surface per degree difference between the water and the gas. The greater efficiency of this latter apparatus would be due to evaporation of part of the water sprayed on the top coil.

It might be well to divide the gas through more than one coil and the height of each coil should not be less than 15 pipes to make the contact as long as possible.

We have no apparatus such as I have described above for cooling gas, but use a bank of cooling coils for cooling the circulating water for the scrubber-condenser from which the heat transfer figures were gotten, and I believe they would hold good in the above mentioned apparatus.

G-17

Relative to high pressure gas pumping and transmission, can you advise:

1. To how high a pressure we could compress gas for transmission through a small line, and what are the factors that limit this pressure?
2. What would be the effect on the gas and especially on its B. t. u. value?
3. What formulas for gas flow are best adapted to great loss in pressure through a small in. diameter but very long length pipe line operating at very high initial pressures and final pressures about one pound?

4. What type of compressors are best adapted to do this work and what troubles develop in their use?

We have heard from some doubtful source that the natural gas people have lately developed the practice of pumping at 200 to 300 pounds pressure through small sized pipes for a distance of 50 to 60 miles, and if this is so, why would the same practice not apply to manufactured gas as well.

ANSWER.

Mr. F. C. Weber, H. L. Doherty & Co., 60 Wall St., New York City

Referring to Question 1, the only real limit to the pressure that can be carried in a small pipe for gas transmission is the pressure withstanding capacity of the pipe. In natural gas practice it is common custom to carry from 200 to 300 pounds, and even much higher at times.

In regard to Question 2, although I have not had much actual experience with extremely high pressures, I do know that gas can easily be compressed to 50 or 60 pounds with a very slight loss in calorific value. I have seen some figures that are given as the results of tests on oil gas, where with a pressure of 300 pounds the calorific value was reduced by about 10%. With a pressure of approximately 100 pounds, however, the reduction in B. t. u.'s was in the neighborhood of 5%. This, however, was oil gas which I would expect to be more effective at that pressure than coal gas. Unless, therefore, the questioner proposes to carry 200 or 300 pounds pressure, I do not believe that he would need to be much disturbed on account of the loss of B. t. u.'s, particularly if coal gas or thoroughly fixed water gas is used. There is, however, a very pronounced drop in the illuminating power of gas when it is compressed. For instance, on the oil gas mentioned above, the candle power drops from 22 at zero pressure to 5 at 300 pounds. Likewise other tests on pressures of only 50 or 60 pounds show a very large reduction in illuminating power. I would not imagine, however, that this feature is of much consequence, because very few companies are now working under a photometric standard.

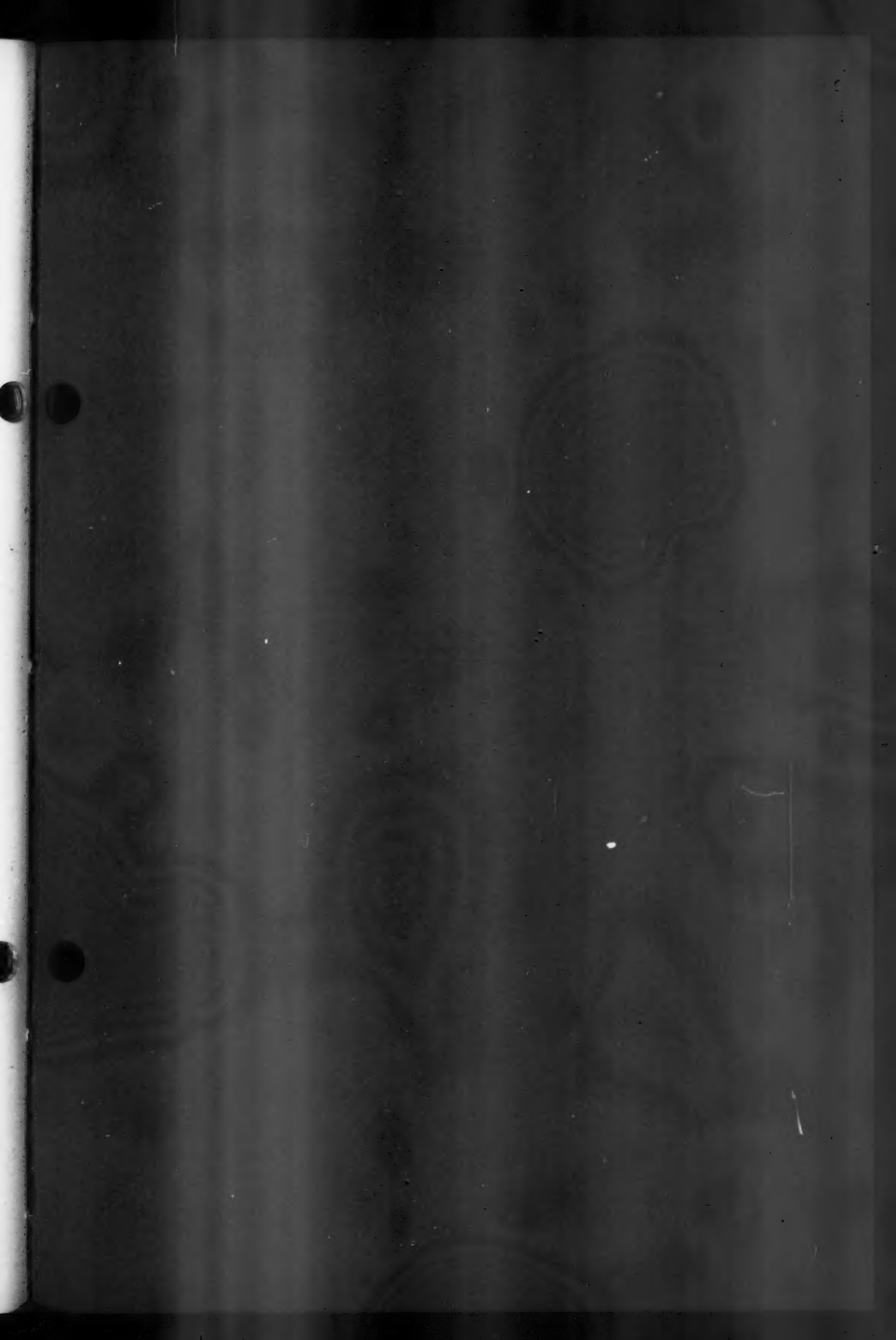
The formulæ we like best for figuring gas flow under high pressures is the so-called Pittsburgh Formulæ, as follows:

$$Q = 3450 \sqrt{\frac{(P_1^2 - P_2^2) d^5}{l}}$$

When Specific Gravity is .6

Some of our calculations have shown that an economical design of high pressure gas mains is arrived at where there is a pressure drop of 5 pounds per mile.

Answering Question 4, the only type of compressor that can be used for high pressures is a piston type. If the pressures are to be much in excess of 50 or 60 pounds, it probably should be two or three stage compressor.



AMERICAN GAS ASSOCIATION, INC.

HEADQUARTERS 180 EAST 10TH ST., NEW YORK, N. Y.

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A. B. MACBETH	Los Angeles, Cal.
SIDNEY MASON	Gloucester, N. J.
THOMAS N. MCCARTER	Newark, N. J.
HERMSON McMILLIN	New York, N. Y.
H. A. NORTON	Boston, Mass.
HARRY D. SCHALL	Detroit, Mich.

Section Officers.

ACCOUNTING—Chairman	A. P. POST	Philadelphia, Pa.
Vice-Chairman	A. L. TOSSELL	Chicago, Ill.
Acting Secretary	H. W. HARTMAN	Ass'n Head'qtrs.
ADVERTISING—Chairman	GEORGE WILLIAMS	New York, N. Y.
Vice-Chairman	M. C. ROBBINS	New York, Y.
Secretary	CHAS. W. PERSON	Ass'n Head'qtrs.
COMMERCIAL—Chairman	C. A. MUNROH	Chicago, Ill.
Vice-Chairman	J. P. HANLAN	Newark, N. J.
Secretary	LOUIS STOTZ	Ass'n Headquart'rs
MANUFACTURERS—Chairman	W. G. GRIBBEL	Philadelphia, Pa.
Vice-Chairman	G. S. BARROWS	Providence, R. I.
Secretary	W. W. BARNES	Ass'n Headquart'rs
TECHNICAL—Chairman	I. R. DUTTON	Jenkintown, Pa.
Vice-Chairman	W. S. BLAUVELT	Terre Haute, Ind.
Secretary	H. W. HARTMAN	Ass'n Headquart'rs
SECRETARY-MANAGER	OSCAR H. FOGG	Ass'n H'dquarters
ASS'T SECRETARY-MANAGER	LOUIS STOTZ	Ass'n H'dquarters
ASS'T TREASURER	W. CULLEN MORRIS	New York, N. Y.
ASS'T TREASURER	HENRY M. BRUNDAGE	New York, N. Y.

